

Service Manual

General Description
Adjustment Procedures
Block / Schematic Diagrams
Exploded Views / Parts List

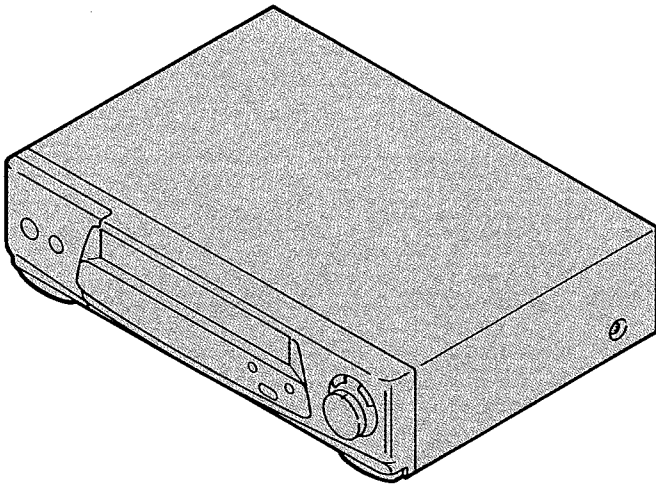
Video Cassette Recorder

Panasonic **VHS**
NTSC

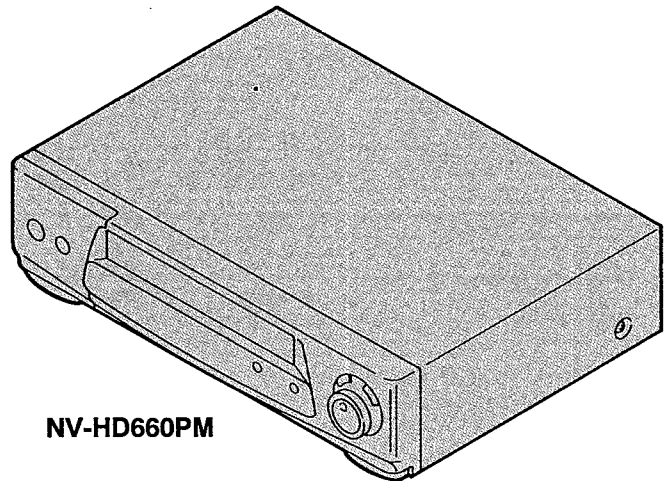
Hi-Fi HQ

NV-SD460 PM
AR
BR
NV-HD660PM

K-MECHANISM



NV-SD460PM/ AR/ BR



NV-HD660PM

Panasonic

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

SPECIFICATIONS (NV-SD460PM/ AR/ BR)

ITEM	SPECIFICATION	ITEM	SPECIFICATION
POWER	SOURCE : 110 – 240 V, 50 / 60 Hz	TAPE FORMAT	VHS Cassette tape (Tape width 12.7 mm)
	CONSUMPTION : 16 watts	TAPE SPEED	NTSC SP : 33.3 mm/s EP : 11.1 mm/s PAL-M (NV-SD460BR) SP : 33.3 mm/s EP : 11.1 mm/s PAL-N (NV-SD460AR) SP : 23.39 mm/s LP : 11.695 mm/s Record / Playback Time : SP : 2 hours with 120 min. type tape (T-120) EP : 6 hours with 120 min. type tape (T-120) FF / REW Time : 2 minutes 20 seconds with 120 min. type tape (T-120)
RECORDING SYSTEM	2 rotary heads, helical scanning system		
TV TUNER SYSTEM	NTSC (NV-SD460PM) N-PAL / NTSC (NV-SD460AR) M-PAL / NTSC (NV-SD460BR)		
	VHF : CH 2 – CH 13, 75 Ω unbalanced UHF : CH 14 – CH 69, 75 Ω unbalanced CATV: CH 5A & CH A-5 – CH EEE CH C13 – CH C63 (NV-SD460PM ONLY)		
RF OUT SYSTEM	VHF : CH 3 or CH 4 66 $\pm$ 2.5 dB μ 75 Ω terminated		
VIDEO	HEADS : 4 rotary heads 1 pair for recording and playback (L-R heads) 1 pair for trick play (L'-R' heads)	OPERATING CONDITION	Temperature : 5 $^{\circ}$ C – 40 $^{\circ}$ C Humidity : 35 % – 80 %
	INPUT : VIDEO IN Connector (Phono type) 1.0 Vp-p, 75 Ω unbalanced	DIMENSIONS	430 (W) X 99.9 (H) X 298 (D) mm
	OUTPUT : VIDEO OUT Connector (Phono type) 1.0 Vp-p, 75 Ω unbalanced	WEIGHT	4.2 kg
AUDIO	HEAD : 1 Stationary head (Normal Audio)	STANDARD ACCESSORIES	1 pc. Remote Controller 1 pc. AC Cord 1 pc. AC Plug Adaptor (NV-SD460PM/BR ONLY) 1 pc. RF Cable
	INPUT : AUDIO IN Connector (Phono type) – 10 dBV (316 mV), 47k Ω		
	OUTPUT: AUDIO OUT Connector (Phono type) – 8 dBV (400 mV), 1k Ω		

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

SPECIFICATIONS (NV-HD660PM)

ITEM	SPECIFICATION	ITEM	SPECIFICATION
POWER	SOURCE : 110 – 240 V, 50 / 60 Hz	AUDIO	INPUT : AUDIO IN Connector (Phono type) – 10 dBV (316 mV), 47k Ω
	CONSUMPTION : 18 watts		OUTPUT: AUDIO OUT Connector (Phono type) – 8 dBV (400 mV), 1k Ω
RECORDING SYSTEM	2 rotary heads, helical scanning system	TAPE FORMAT	VHS Cassette tape (Tape width 12.7 mm)
	NTSC		
TV TUNER SYSTEM	VHF : CH 2 – CH 13, 75 Ω unbalanced UHF : CH 14 – CH 69, 75 Ω unbalanced CATV: CH 5A & CH A-5 – CH EEE	TAPE SPEED	SP : 33.3 mm/s EP : 11.1 mm/s Record / Playback Time : SP : 2 hours with 120 min. type tape (T-120) EP : 6 hours with 120 min. type tape (T-120) FF / REW Time : 2 minutes 20 seconds with 120 min. type tape (T-120)
RF OUT SYSTEM	VHF : CH 3 or CH 4 66 $\pm$ 2.5 dB μ 75 Ω terminated		
VIDEO	HEADS : 4 rotary heads 1 pair for recording and playback (L-R heads) 1 pair for trick play (L'-R' heads)	OPERATING CONDITION	Temperature : 5 $^{\circ}$ C – 40 $^{\circ}$ C Humidity : 35 % – 80 %
	INPUT : VIDEO IN Connector (Phono type) 1.0 Vp-p, 75 Ω unbalanced	DIMENSIONS	430 (W) X 99.9 (H) X 298 (D) mm
	OUTPUT : VIDEO OUT Connector (Phono type) 1.0 Vp-p, 75 Ω unbalanced	WEIGHT	4.2 kg
AUDIO	HEAD : 1 Stationary head (Normal Audio) 2 rotary heads (Hi-Fi 2CH)	STANDARD ACCESSORIES	1 pc. Remote Controller 1 pc. AC Cord 1 pc. AC Plug Adaptor 1 pc. RF Cable

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

INTRODUCTION

This service manual contains technical information which will allow service personnels to understand and service this model. Section 1 presents you with technical know how for actual servicing and general information of features and controls, enabling you to become familiar with each function.

Section 2 presents to you mechanical and electrical adjustment information as well disassembly and replacement procedures. In the case of very common information relating to other models like mechanical adjustments, please refer to the appropriate service manual.

Section 3 contains block diagrams which offers you information for checking and understanding each circuit. Schematic diagrams which give you detailed information such as waveforms, voltage data, function etc. ...

Section 4 contains exploded views and parts list.

Please place orders using the parts list and not the drawing reference numbers.

If the circuit is changed or modified, this information will be followed by supplementary service manual to be filed with original service manual.

CONTENTS

SECTION 1 GENERAL DESCRIPTIONS	1-1	3-4. Hi-Fi AUDIO BLOCK DIAGRAM	
1-1. SERVICE INFORMATION	1-1	(NV-HD660PM ONLY)	3-13
A. CHECKING OF MAIN C.B.A.	1-1	3-5. POWER SCHEMATIC DIAGRAM	3-15
B. MECHANISM SERVICE POSITION	1-1	3-6. POWER C.B.A.	3-17
C. CYLINDER UNIT REPLACEMENT		3-7. SYSTEM CONTROL & SERVO SECTION	
(NV-SD460PM/AR/BR ONLY)	1-2	IN MAIN SCHEMATIC DIAGRAM	3-21
D. UPPER CYLINDER REPLACEMENT		3-8. VIDEO SECTION IN MAIN	
(NV-SD460PM/AR/BR ONLY)	1-3	SCHEMATIC DIAGRAM	3-24
E. NEW GLDD CYLINDER UNIT REPLACEMENT		3-9. TIMER SECTION IN MAIN	
(NV-HD660PM ONLY)	1-4	SCHEMATIC DIAGRAM	3-27
F. UPPER CYLINDER REPLACEMENT		3-10. AUDIO SECTION IN MAIN SCHEMATIC	
(NV-HD660PM ONLY)	1-4	DIAGRAM (NV-HD660PM)	3-29
G. CAPSTAN STATOR UNIT ASSEMBLY	1-5	3-11. AUDIO SECTION IN MAIN SCHEMATIC	
H. EJECT OPERATION	1-6	DIAGRAM (NV-SD460PM/AR/BR)	3-31
I. TAKE-UP PHOTO SENSOR OPERATION	1-6	3-12. MAIN C.B.A. (NV-SD460PM/AR/BR)	3-33
J. POWER TRANSISTOR SERVICING	1-6	3-13. MAIN C.B.A. (NV-HD660PM)	3-35
K. CASSETTE TAPE REMOVAL	1-6	3-14. PAL CONVERTER C.B.A.	
L. FLAT CARD CABLE INSTALLATION	1-7	(NV-SD460BR ONLY)	3-38
M. MODEL NUMBER SETTING OF		3-15. PAL CONVERTER SCHEMATIC DIAGRAM	
TIMER MICROPROCESSOR	1-7	(NV-SD460BR ONLY)	3-39
1-2. SELF-TEST INDICATION DISPLAY	1-8	3-16. HEAD AMP SCHEMATIC DIAGRAM	
1-3. SERVICE INFORMATION DISPLAY	1-9	(NV-SD460PM/AR/BR)	3-41
1-3-1. PURPOSE OF SERVICE INFORMATION		3-17. HEAD AMP C.B.A. (NV-SD460PM/AR/BR)	3-43
DISPLAY	1-9	3-18. HEAD AMP C.B.A. (NV-HD660PM)	3-44
1-3-2. TURNING ON SERVICE INFORMATION		3-19. HEAD AMP SCHEMATIC DIAGRAM	
DISPLAY	1-9	(NV-HD660PM)	3-45
1-3-3. USE OF SERVICE MODES	1-10	3-20. VIF PACK SCHEMATIC DIAGRAM	
1-3-4. SERVICE INFORMATION NUMBER	1-11	(NV-HD660PM ONLY)	3-47
1-3-5. TIMING CHART FROM MODE SW TO		3-21. VIF PACK C.B.A. (NV-HD660PM ONLY)	3-49
SYSTEM CONTROL IC6001	1-13	3-22. OPERATION SCHEMATIC DIAGRAM	3-50
1-3-6. INPUT/OUTPUT CHART FOR IC6001	1-14	3-23. OPERATION C.B.A.	3-50
1-4. OPERATING INSTRUCTIONS	1-18	3-24. FRONT JACK SCHEMATIC DIAGRAM	3-51
		3-25. FRONT JACK C.B.A.	3-51
SECTION 2 ADJUSTMENT PROCEDURES .	2-1	SECTION 4 EXPLODED VIEWS &	
2-1. DISASSEMBLY METHOD	2-1	PARTS LIST	4-1
2-2. MECHANICAL ADJUSTMENT PROCEDURES	2-3	4-1. EXPLODED VIEW MECHANICAL	
2-3. ELECTRICAL ADJUSTMENT PROCEDURES	2-5	REPLACEMENT PARTS LIST	4-1
SECTION 3 BLOCK DIAGRAMS &		1. CHASSIS PARTS SECTION (1)	4-1
SCHEMATIC DIAGRAMS	3-1	2. CHASSIS PARTS SECTION (2)	4-3
3-1. ABBREVIATIONS	3-1	3. CASING PARTS SECTION	4-4
3-2. SYSTEM CONTROL & SERVO SECTION		4. PACKING PARTS SECTION	4-6
BLOCK DIAGRAM	3-5	5. REMOTE CONTROLLER UNIT	
3-3. VIDEO SECTION BLOCK DIAGRAM	3-9	(NV-HD660PM ONLY)	4-7
		4-2. ELECTRICAL REPLACEMENT PARTS LIST	4-8

SECTION 1

GENERAL DESCRIPTIONS

1-1. SERVICE INFORMATION

<A> CHECKING OF MAIN C.B.A.

When servicing the MAIN C.B.A., take out the MAIN C.B.A. and mechanism from the frame and turn over.

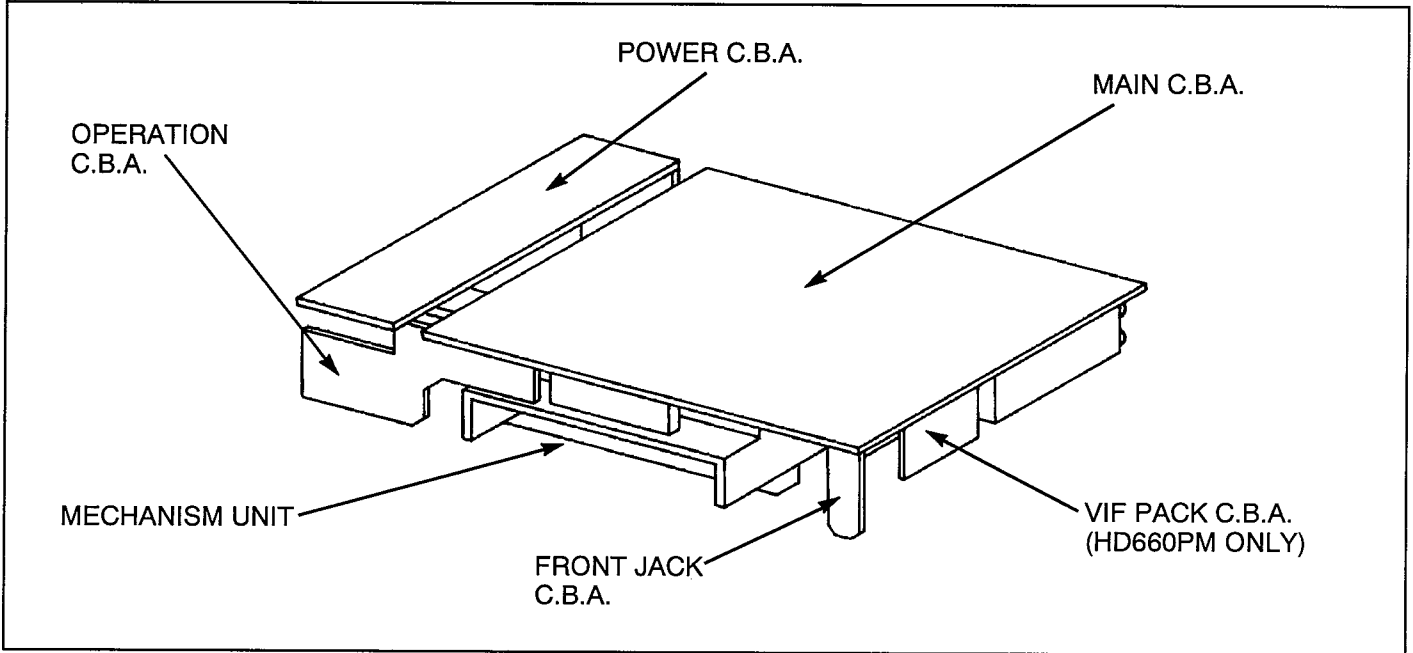


Fig.S1

 MECHANISM SERVICE POSITION

When servicing the K-Mechanism, take out the mechanism from the MAIN C.B.A. and connect Extension Cable (VFK0889) between the Loading motor connector and P1502 as shown in Fig.S2.

In this position , the following services are possible.

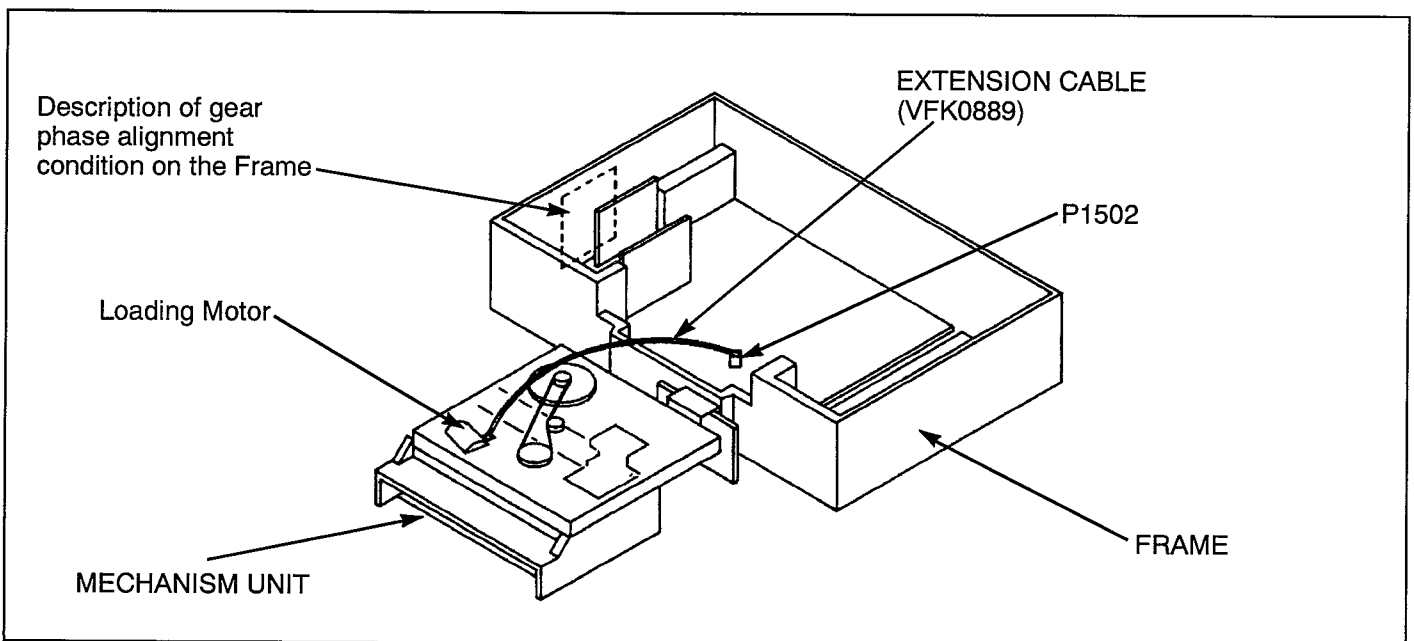


Fig.S2

<B-1> CHECKING OF GEAR PHASE ALIGNMENT CONDITION

Check gear phase Alignment Condition of Mechanism described on the left side of frame.

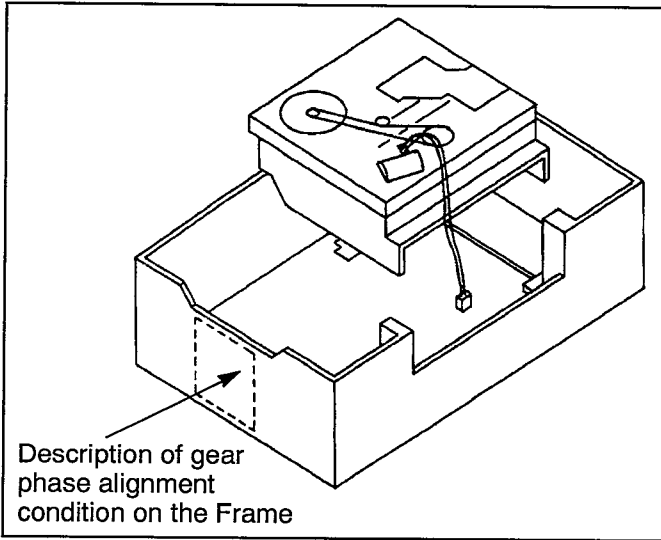


Fig. S3

<B-2> CHECKING OF LOADING/UNLOADING OPERATION

There are 3 methods for checking of loading/ unloading operation as follows.

(1) HAND OPERATION

- 1) Turn the Worm Gear or the Worm Wheel Gear (Remove the Loading Motor unit) manually.

(2) BATTERY OPERATION

- 1) Disconnect the Extension cable (VFK0889) from connection of loading motor unit.
- 2) Connect the Battery (Manganese-Type R6(AA) 3pcs. /+4.5V) to the Loading motor terminals.

(3) SERVICE INFORMATION DISPLAY OPERATION

- 1) Set the Service Information display mode. (Press the FF and EJECT buttons simultaneously.)
- 2) Press the FF and EJECT buttons 7 times to set the Service Mode 7.
- 3) In the above Service Information Display mode, the Loading Motor rotates for loading operation when the "PLAY" button is pressed. The Loading Motor rotates for unloading operation when the "STOP" button is pressed.

Remark:

Use the "SERVICE INFORMATION DISPLAY" mode for a final check of Mechanism movement.

<B-3> CHECKING OF REEL GEARS OPERATION

- 1) Move the mechanism to "PLAY" position by loading operation (Refer to < B >).
- 2) Turn the "Rotor Unit" to check the movement of reel gears.

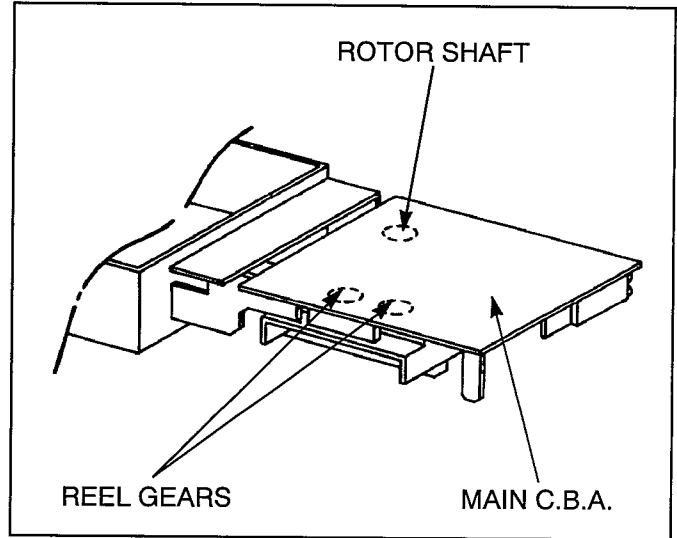


Fig.S4

<C> CYLINDER UNIT REPLACEMENT (NV-SD460PM/AR/BR ONLY)

Remove the 3 Screws of the CYLINDER UNIT with a magnetized screw driver in the MECHANISM SERVICE POSITION.

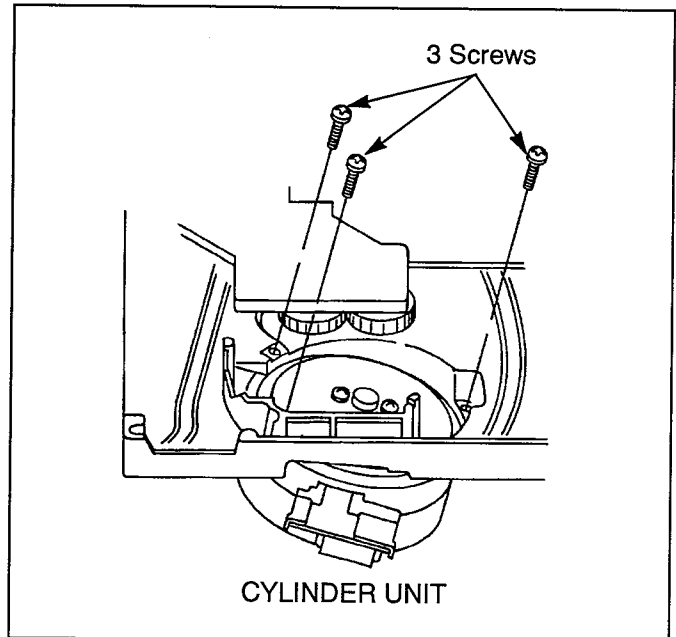


Fig. S5

<D> UPPER CYLINDER REPLACEMENT (NV-SD460PM/AR/BR ONLY)

<D-1> UPPER CYLINDER DISASSEMBLY

1. Remove 2 screws (A).
2. Remove the CYLINDER STATOR C.B.A.
3. Remove 2 screws (B).
4. Remove the CYLINDER ROTOR UNIT.
5. Loose Hex screw (C) and remove the CYLINDER RETAINER. (Use Hex. key Wrench 1.5mm)
6. Remove the UPPER CYLINDER UNIT.

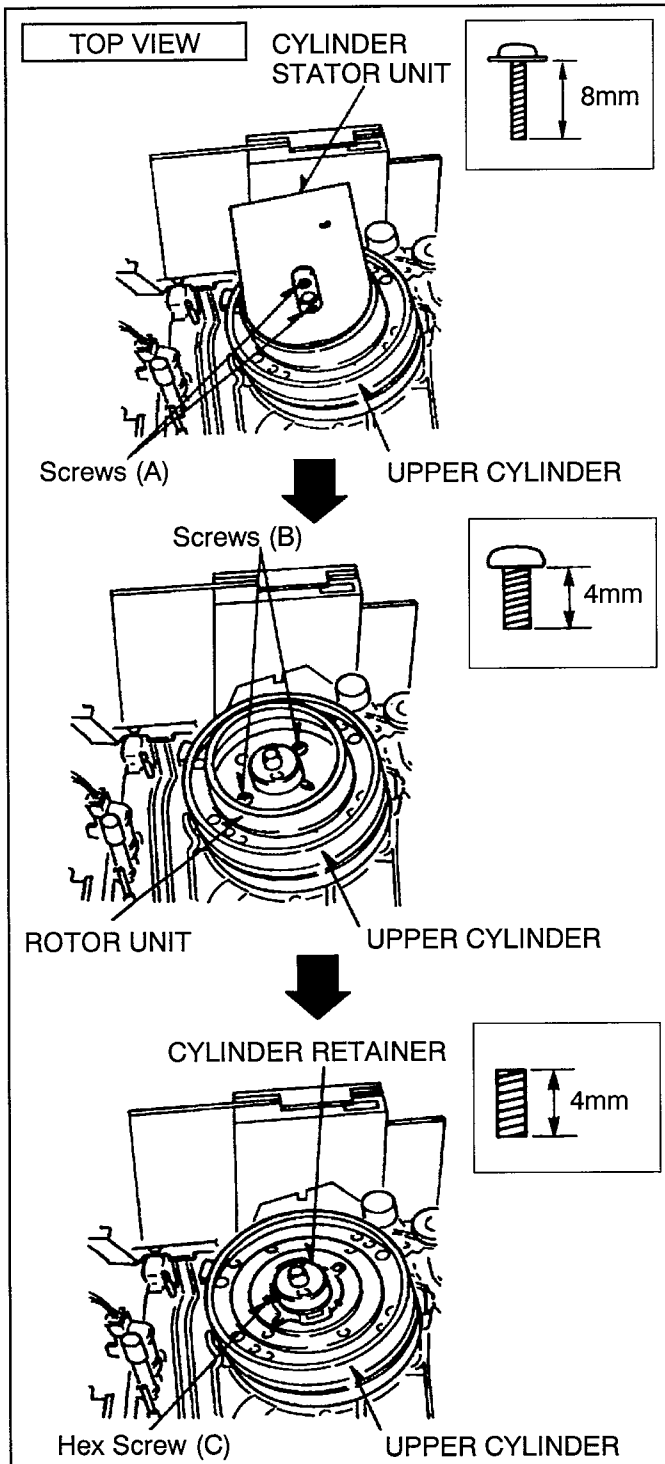


Fig. S6

<D-2> UPPER CYLINDER ASSEMBLY

When reassembling, perform the steps in the reverse order.

Notes:

- 1) Install the Cylinder Retainer so that the 2 holes on top of the Cylinder Retainer are at right angles with the P502 connection.
- 2) Tighten the Hex screw (C) while pressing down on top of the Cylinder Retainer. (Use Hex. key Wrench 1.5mm)

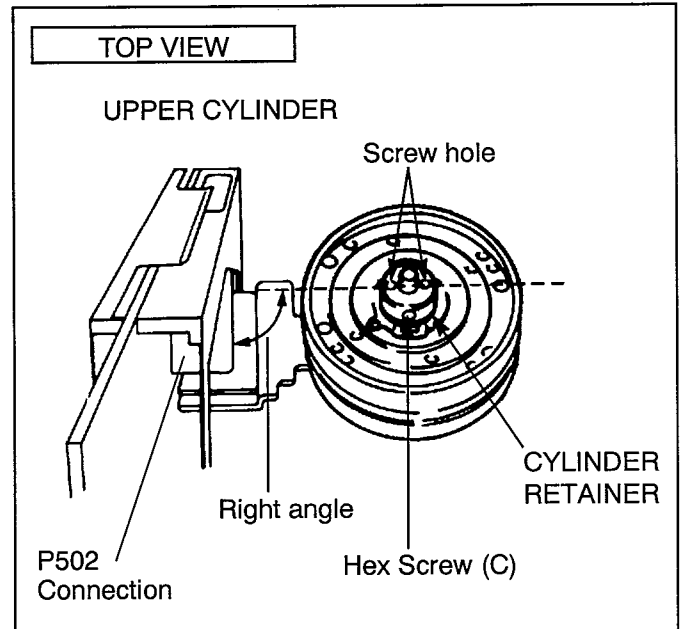


Fig. S7

- 3) Install the Cylinder Rotor Unit so that the inner hole of the Cylinder Rotor Unit fits to the small projection (D) on top of the Upper Cylinder.
- 4) Tighten 2 screws (B).

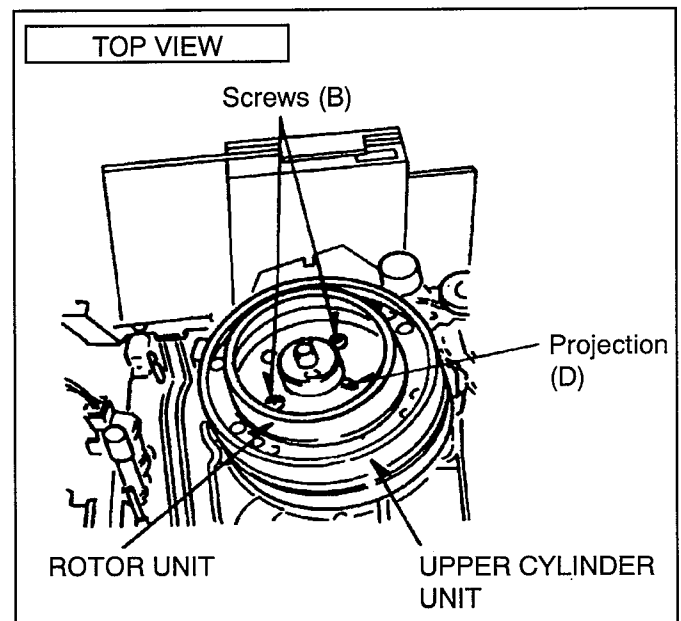


Fig. S8

- 5) Install the Cylinder Stator Unit .
- 6) Tighten 2 screws (A).

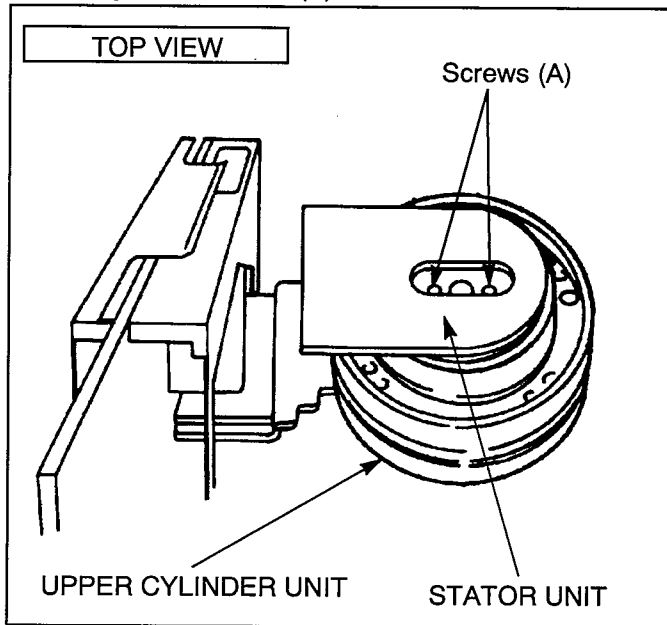


Fig. S9

- 7) Confirm the PG SHIFTER ADJUSTMENT with the alignment tape (NTSC: VFM8080HQFP/PAL: VFJ8125H3F) and adjust it if necessary.

<E> NEW GLDD CYLINDER UNIT REPLACEMENT (NV-HD660PM ONLY)

- 1) Remove Screw (A) for fixing the EARTH PLATE.
- 2) Remove the EARTH PLATE.
- 3) Remove 3 Screws (B) of the NEW GLDD CYLINDER unit with a magnetized screw driver.
- 4) Lift the NEW GLDD CYLINDER UNIT.

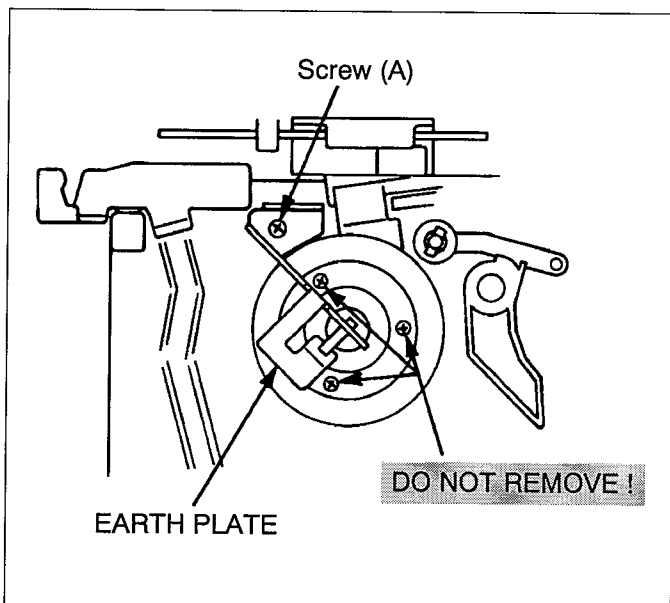


Fig. S10-1

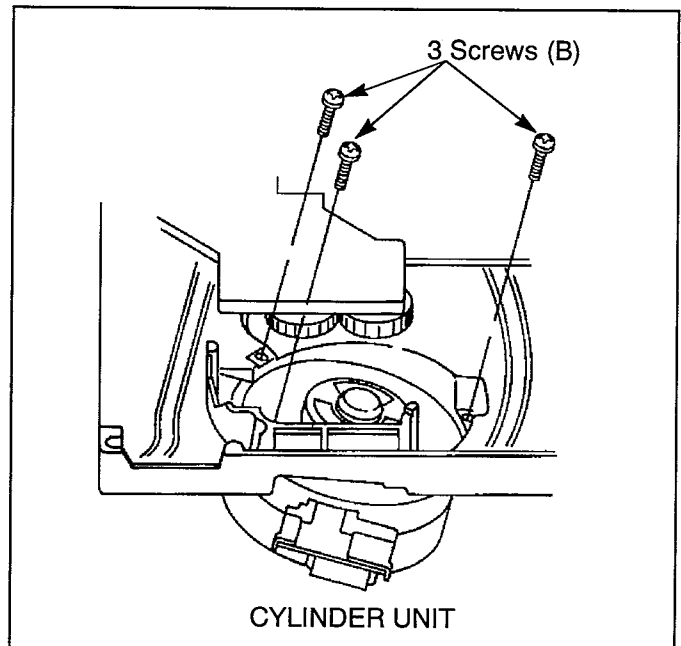


Fig. S10-2

<F> UPPER CYLINDER REPLACEMENT (NV-HD660PM ONLY)

<F-1> UPPER CYLINDER DISASSEMBLY

- 1) Remove Screw (A) for fixing the EARTH PLATE.
- 2) Remove the EARTH PLATE.
- 3) Lift the UPPER CYLINDER UNIT.

NOTE : Do not remove 3 screws on the UPPER CYLINDER.

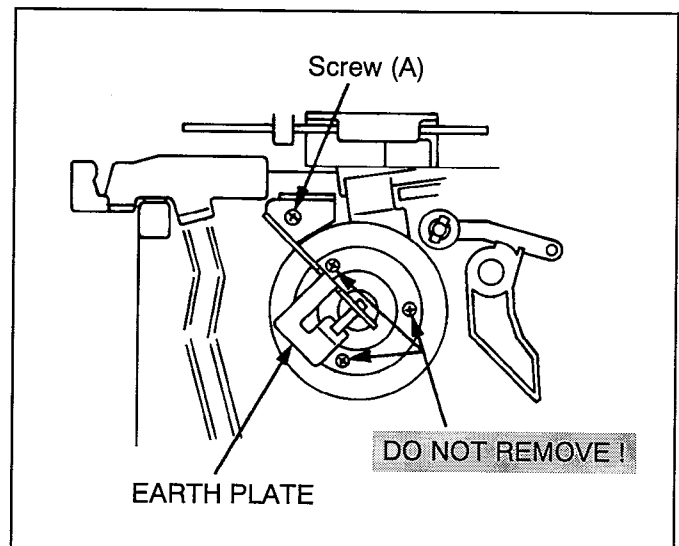


Fig. S11

Do not remove the ROTOR MAGNET which fixed by 3 screws on the UPPER CYLINDER.

If it is removed, refer to following method.

- 1) Install the ROTOR MAGNET so that the hole (B) on the ROTOR MAGNET fits to the small Projection (C) on bottom of the UPPER CYLINDER.
- 2) Tighten 3 screws on Top of the UPPER CYLINDER.

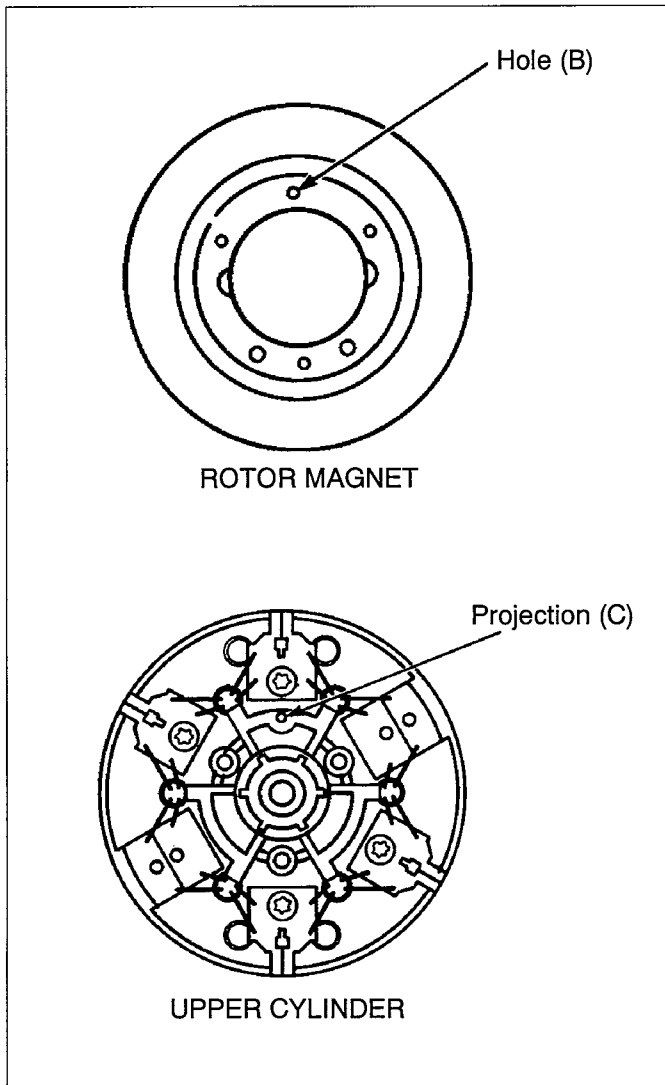


Fig. S12

<F-2> UPPER CYLINDER ASSEMBLY

When reassembling, Perform the steps in the reverse order of the DISASSEMBLY METHOD. (Item F-1)

<F-3> NEW GLDD CYLINDER

- 1) GLDD and NEW GLDD Cylinder
The construction of New GLDD Cylinder has been designed simpler than GLDD Cylinder, and the general

- performance has been improved.
- 2) The difference between GLDD Cylinder and conventional cylinder.
 - (1) GLDD has improved linearity, higher stability of herd revolution with oil sealing and higher serviceability with the simpler structure. GLDD and New GLDD Cylinders are used for step-up range VCR.
 - (2) GLDD enables less working time to replace upper cylinder unit and cylinder unit due to the following reasons.
 - 1) No Soldering
 - 2) No Screws
 Please refer to "Upper Cylinder Replacement" for the detailed replacement procedure.

Note: "GLDD" cylinder stands for the following.

- G : GLDD has been developed and introduced from VCRs using G-Mechanism.
LDD : Liquid Direct Drive.

<G> CAPSTAN STATOR UNIT ASSEMBLY

When replacing the CAPSTAN STATOR UNIT, the STATOR CENTERING TOOL (VFK0851) must be used to center the CAPSTAN STATOR UNIT.

Method:

- 1) Place the CAPSTAN STATOR UNIT into position.
- 2) Loosely screw in the 3 Screws.
- 3) Insert the Stator Centering Tool (VFK0851) as show in Fig.S13-2.
- 4) Tighten the 3 Screws.
- 5) Remove the Stator Centering Tool.

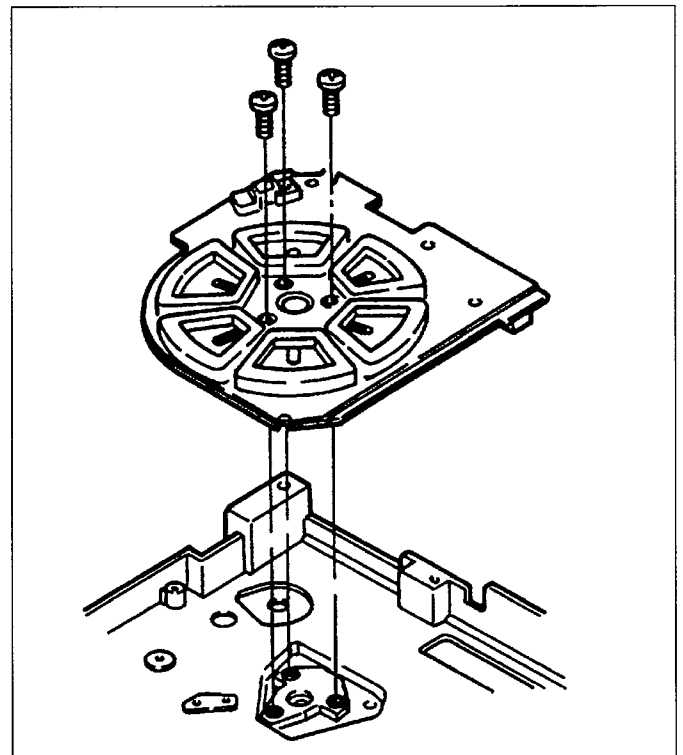


Fig. S13-1

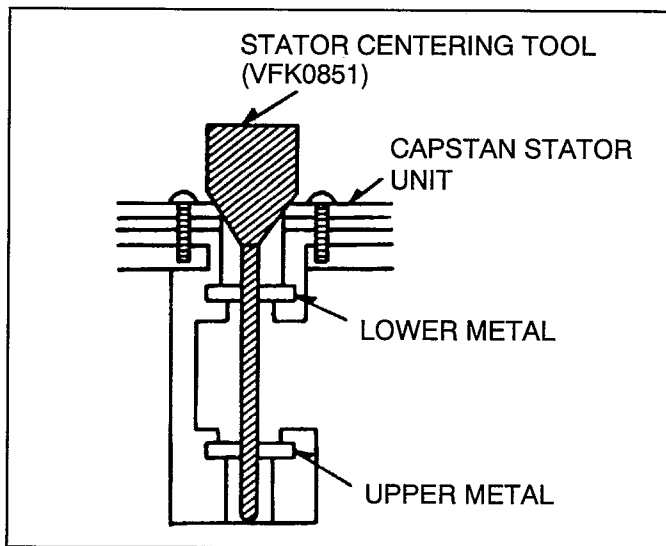


Fig. S13-2

<H> EJECT OPERATION

The main cam gear rotates in the direction of the arrow. The projection (B) of the carriage connection gear engages with the recession (A) of the main cam gear. The carriage connection gear rotates in the direction of the arrow to perform the Eject operation.

<NOTE>

If the Eject operation is performed without the cassette carriage installed while repairing or making the mechanical phase alignment, the main cam gear will not engage with the carriage connection gear and will not rotate.

To perform the Eject operation with the cassette carriage not installed, it is necessary to rotate the carriage connection gear by hand in the direction of the arrow.

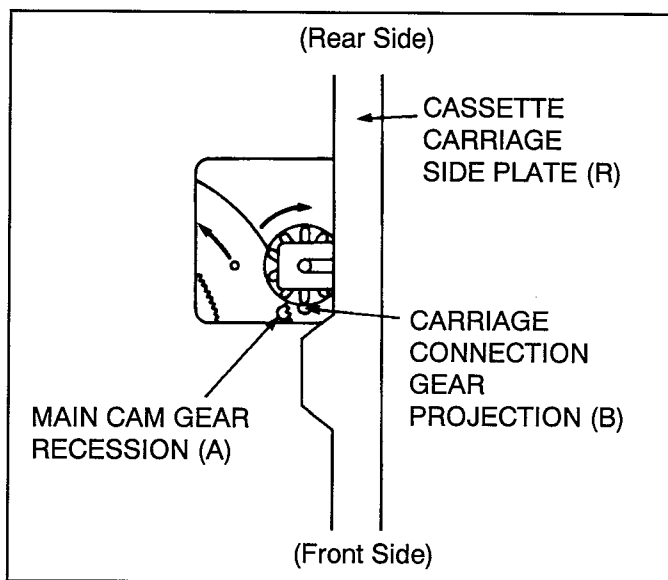


Fig. S14 Top View of Eject Operation

<I> TAKE-UP PHOTO SENSOR OPERATION

1) While servicing of the K-Mechanism, the unit will not operate properly if a strong light (ex, Fluorescent light) falls on the Take-up Photo Sensor.

In this case, cover the Take-up Photo sensor to prevent the light from falling on it.

2) While servicing of the K-mechanism with "Power On" and without cassette tape inserted, the Unit will not operate properly.

<J> POWER TRANSISTOR SERVICING

When removing the connector of the POWER Transistor, hold the Power Transistor by hand to prevent damage.

<K> CASSETTE TAPE REMOVAL

(1) HAND OPERATION

- 1) Take out the mechanism from MAIN C.B.A.
- 2) Turn the Worm Gear manually, moving the Loading post to the unloaded position.
- 3) Turn the Capstan Rotor Unit clockwise to Take up the Tape.
- 4) Turn the Worm Gear again to eject the cassette.

(2) BATTERY OPERATION

- 1) Connect the battery (Manganese-Type R6 (AA)3pcs./+4.5V) to P1502 as shown in Fig.S15.
- 2) After moving the LOADING POST to the unloaded position, disconnect the battery to stop the motor.
- 3) Turn the CAPSTAN to clockwise to take up the tape.
- 4) Reconnect the battery to eject the cassette.

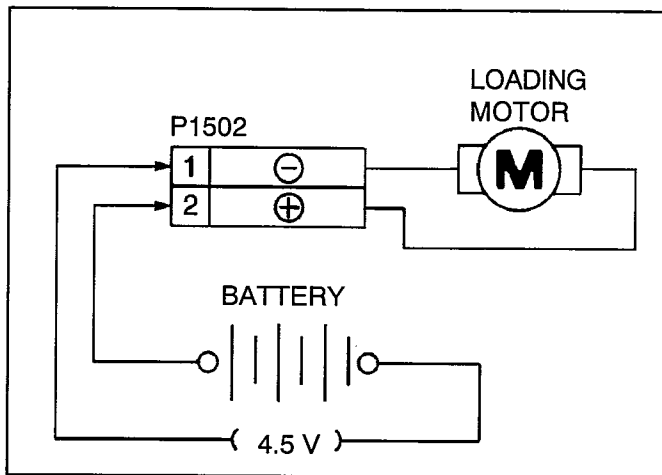


Fig. S15

If the cassette tape can not be removed by the above method, remove it by the following method.

- 1) Remove the Top Panel.
- 2) Remove the Front Panel Unit.
- 3) Lift up the Pinch Arm after removing spring.
- 4) Push the P5 Arm and remove the Tape from tape transportation (P3, P2, P5 and P1 Post).
- 5) Turn the Capstan Motor to take up the Tape.
- 6) Remove 1 screw from the Side Plate (R) Unit to disconnect the Rack Gear from the Carriage Connection Gear.
- 7) Take out the Cassette Tape from the Cassette Compartment.

<L> FLAT CARD CABLE INSTALLATION

When installing the Flat Card Cable on the connector, install the cable with the cable contacts facing the connector contacts.

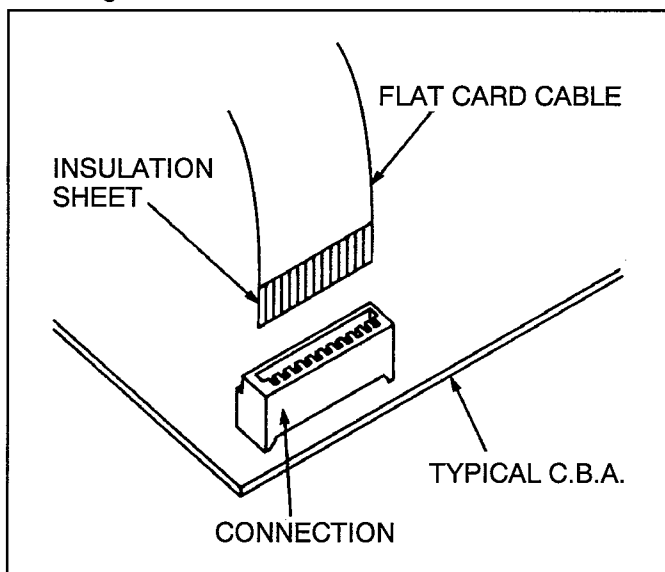


Fig. S16

<M> MODEL NUMBER SETTING OF TIMER MICROPROCESSOR

When replacing the Timer Microprocessor IC7501 (Part No. M37507V6AG : SD460PM/AR/BR, Part No. M37507V8AG : HD660PM), its IC should be set the initialization code.

Method :

PROCEDURES	DISPLAY
1. To set Service Mode 2, press the FF and EJECT buttons simultaneously three times.	2 00 00
2. Press EJECT button for more than three seconds.	2 00 00
3. Select adjustment number 2 by using CH ▲ (UP) / CH ▼ (DOWN) buttons.	2 02 00
4. Press POWER button. Present setting code is indicated in the FIP DISPLAY.	0 01 05
5. Set the initialization code NV-SD460PM : 「01 05」 NV-SD460AR : 「01 25」 NV-SD460BR : 「01 16」 NV-HD660PM : 「03 45」 by using REW, PLAY, STOP and FF buttons.	0 00 01
6. Press POWER button after setting the code.	2 02 00
7. To release Service Mode 2, press the FF and EJECT buttons simultaneously six times.	0 00 00

Fig. S17

- Note :
1. The VCR does not operate normally when the initialization code is not set correctly.
 2. The function of Channel Memory IC have been built in the Timer Microprocessor IC7501.

1-2. SELF- TEST INDICATION DISPLAY

This VTR has a self- diagnosis and display function. If the VTR detects trouble during installation or during use, one of the following Fault indication Codes will automatically appear in the VTR display. Fault indication codes are displayed in the form of a single English letter followed by two numbers, as for example "H01".

- Note: 1. The indication "U" is displayed on the FIP while power remains on.
 2. Otherwise, the indication "H" or "F" is displayed on the FIP, and the power is automatically turned off.
 When the power is turned on again, the Fault Indication Code will disappear and the unit will return to normal display mode (either clock or counter).

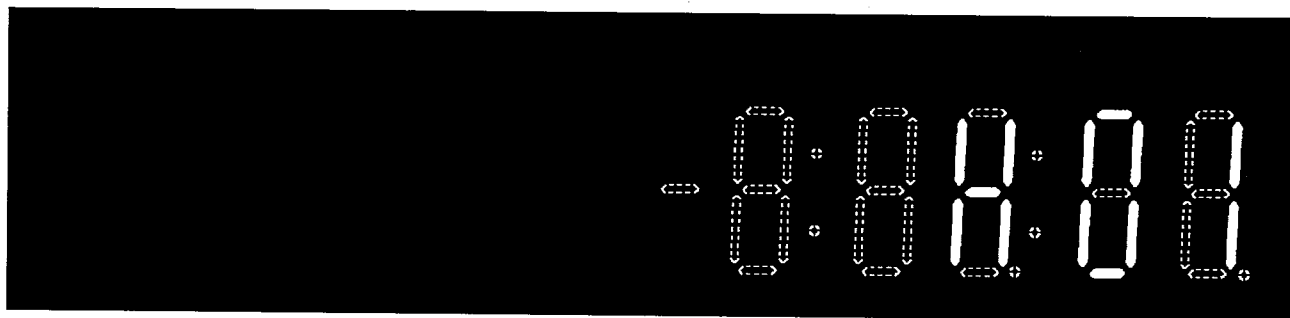
3. This Fault Indication Code will be stored in the Timer microprocessor even with the AC plug disconnected.

The two- digit number portion of the stored Fault Indication Code can be redisplayed in the FIP's "second" display position (the last 2 digits on the light) by placing the unit in Service Mode Number 2 when turning on Service Information Display as for example "01" or "02" etc.

If a second error occurs, only the most recent error will be displayed and stored.

4. To erase the stored Fault Indication Code data, press the FF and EJECT buttons simultaneously for 5 seconds.

< FIP >



INDICATION	CAUSE	REMEDY/ CHECK
H01	After cylinder lock is detected, the cylinder does not start rotating again even after tape unloading.	Check the cylinder- motor drive circuit.
H02	Cassette tape is not wound up during tape unloading except Eject mode.	Check the capstan- motor drive circuit.
F03	Mechanism locks during mode transition except Eject mode.	1.Check the loading- motor drive circuit. 2.Check the mechanism phase alignment. 3.Check the Mode Switch.
F04	Mechanism locks during tape unloading.	1.Check the loading- motor drive circuit. 2.Check the mechanism phase alignment.
F05	Cassette tape is not wound up during tape unloading in Eject mode.	1.Check the capstan- motor drive circuit. 2.Check the Supply/ Take- up reel pulse.
F06	Mechanism locks after tape unloading in Eject mode.	1.Check the loading- motor drive circuit. 2.Check the mechanism phase alignment for Cassette Holder Unit.
F07	Rec power voltage does not appear in Rec mode.	Check the Rec power supply circuit.
F08	Rec power voltage appears except Rec mode.	Check the Rec power supply circuit.
F09	No serial clock transmission between IC6001 and IC7501.	Check the serial clock circuit.

Fig. S18 Self- Test Indication Display

1-3. SERVICE INFORMATION DISPLAY

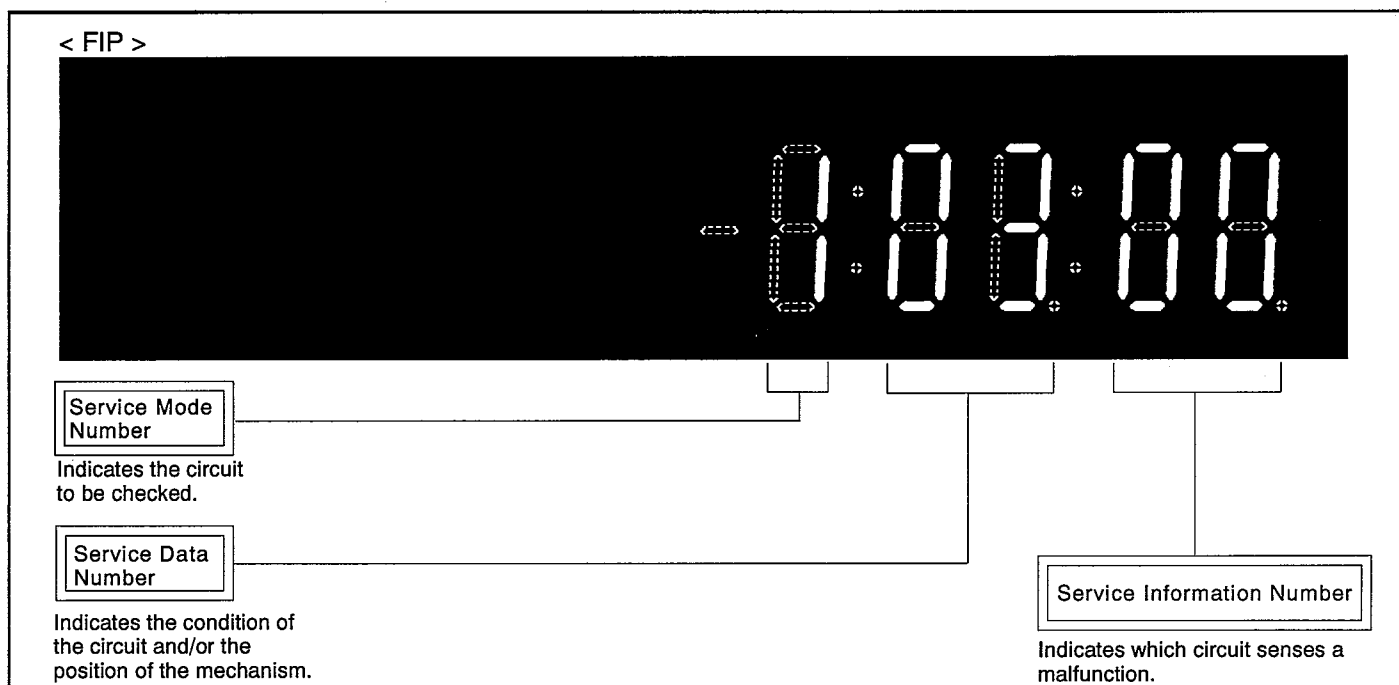


Fig. S19 Service Information Display

1-3-1. Purpose of Service Information Display

This information aids trouble shooting by indicating the source of the malfunction. The service mode number & service data number are used by the technician during repair while the service information can be used by the consumer to diagnose malfunctions allowing the technician to provide a more accurate repair cost estimate and reduce repair time.

1-3-2. Turning on Service Information Display

Press the FF and EJECT buttons simultaneously.

In the Service Information Display, there are five digits divided into 3 functions. The first digit indicates which of the 7 service modes that the unit is currently in.

- MODE 0 : Not Used
- MODE 1 : Checks tape protection circuit
- MODE 2 : Checks tape transport mechanism
- MODE 3 : Checks mode switching operation
- MODE 4 : Checks control buttons
- MODE 5 : Checks capstan motor
- MODE 6 : Checks cylinder motor
- MODE 7 : Checks loading/unloading operation

The second and third digits are service data which indicate the condition of the circuit or mechanism being checked.

The forth and fifth digit is the service information display. It is to be used by the consumer to help determine the source of a malfunction. The service information display operates independently of the service modes and stores the fault indication in memory for as long as AC power is not supplied.

1-3-3. Use of Service Modes

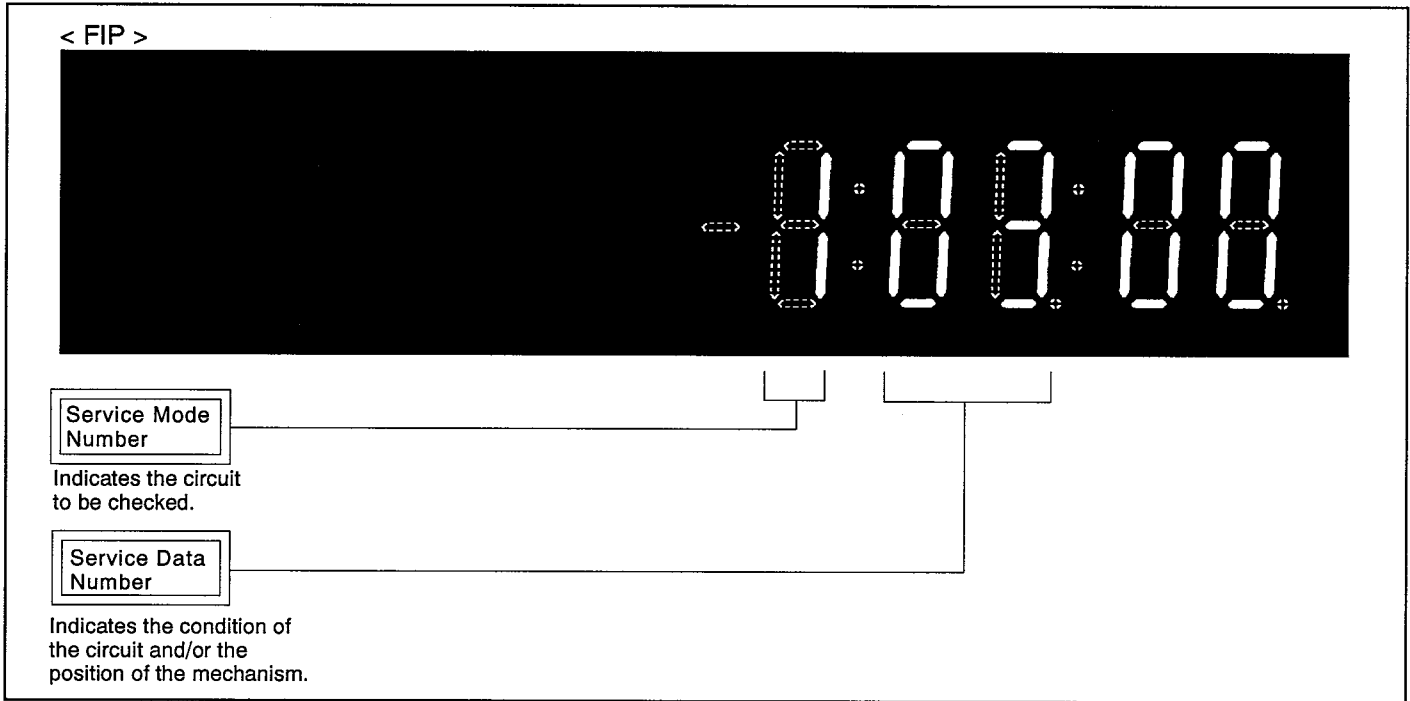


Fig. S20 Service Mode Number and Service Data Number on S.I.D.

(1) Turn on Service Information Display.

(2) To change Service Modes press the FF and EJECT buttons simultaneously.

(3) Mode 0 : Not Used.

0

(4) Mode 1 : Check that the Sensor LED, Supply & Take-up Sensor circuits check the circuits by blocking the light from the Sensor LED to either or both Supply & Take-up Sensors. When the light is blocked to both sensors, "00" should be indicated on the service data number. When the light is blocked to the supply sensor, " 01 " should be indicated.

1

(5) Mode 2 : Checks the mode switch circuit while indicating mechanism position. Service Data Numbers indicate the position of the mode switch and there by the mechanism position.

2

(6) Mode 3 : Checks that mode switch circuit operations have been completed. Service Data Number should indicate "00" after each mechanism operation is completed.

3

(7) Mode 4 : Checks the operation circuit. Indicates if IC6001 receives the operating commands from the mode buttons and/or remote controller.

4

(8) Mode 5 : Checks the capstan motor circuit. Indicates if the IC6001 has received the command to rotate the capstan motor.

5

(9) Mode 6 : Check the cylinder motor circuit. IC6001 has received the command to rotate the cylinder motor.

6

(10) Mode 7 : Checks the Loading/ Unloading Operation. The Loading Motor rotates for loading operation when the " PLAY " button is pressed. The Loading Motor rotates for unloading operation when the " STOP " button is pressed. This mode can be displayed indefinitely until the POWER button is pressed.

7

<NOTE>

Refer to Fig. S23 for details of Service Data Number.

1-3-4. Service Information Number

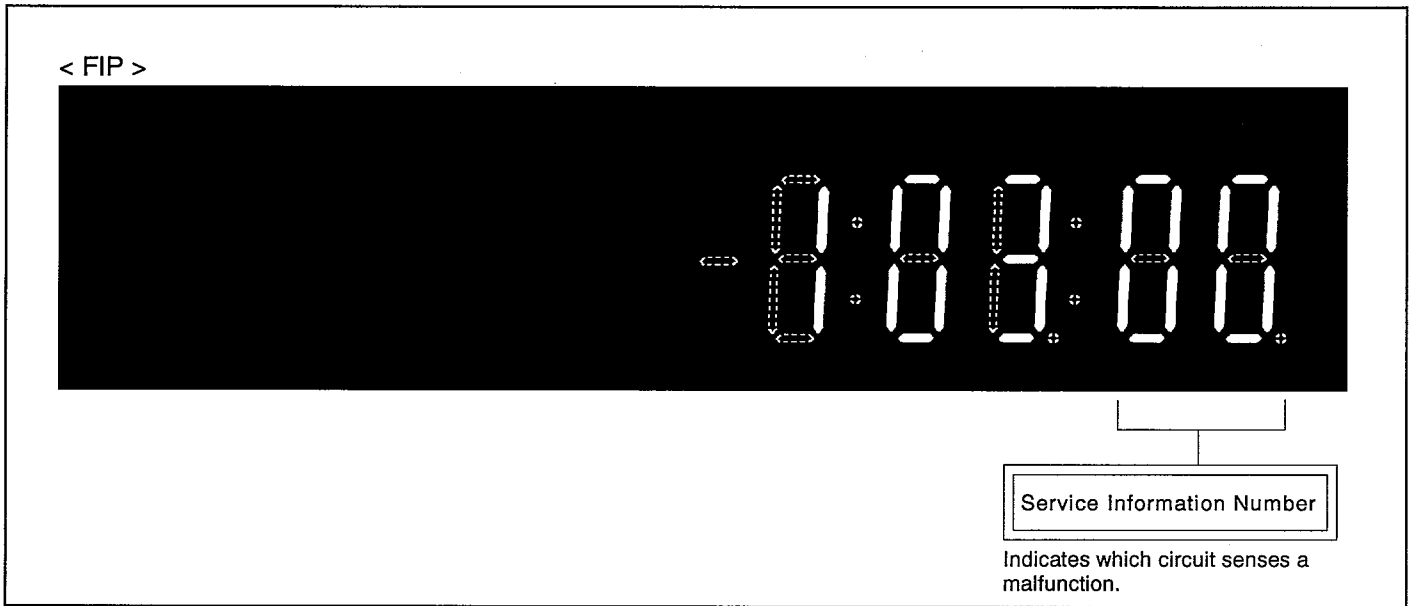


Fig. S21 Service Information Number on S. I. D.

Refer to Fig. S22 for details of Service Information Number.

Note:

The Service Information Number display is independent of the service mode display.

The Service Information Number will be stored as long as AC power is not supplied. If a second error occurs, only the most recent error will be displayed.

Service Information Number	Malfunction
00	Normal (No problem)
01	Cylinder stop
02	Tape reel stop
03	Stop at position other than 04 or 06 (Faulty loading motor)
04	Stop during unloading
05	Faulty capstan rotation
06	Stop during Cassette-IN/EJECT operation
07	REC Power voltage error in REC Mode
08	REC Power voltage error except REC Mode
09	Main Serial communication error between system control and Timer

Fig. S22 Detail Service Information Numbers

Service mode Number	Note for checking Service Data Numbers	Service Data Numbers	Indication	Remarks
1			No light detected at either sensor.	Tape not required
			Tape Beginning. Light to Supply Photo Sensor is blocked.	
			Tape End. Light to Take-up Photo Sensor is blocked.	
			Light detected at both sensors.	
2			EJECT	Tape Required *1: STOP3; The Pinch Roller is on the capstan motor shaft. *2: STOP; The Pinch Roller is off the capstan motor shaft. Refer to Fig.S24 to Check mechanism Position and timing.
			Cassette-down	
			REV	
			Loading/Unloading	
			PLAY/REC, STILL/PAUSE, CUE, FWD SLOW, STOP3*1	
			STOP *2	
3	Disregard service data displayed until mechanism operation is completed. Then the display should indicate "00".		FF/REW	Tape Required
			Intermediate position.	
			Any display other than "00" indicates a fault in the mode switch circuit or system.	
4	Display only when the operating button is pressed.			Tape not required
5	Left digit only, disregard Right digit display.		8, 9, u, A, -, n, L, and no display indicate that the Capstan motor "PLAY" command received by IC6001.	Tape required. If a symbol other than those listed is displayed, a malfunction in that circuit is indicated.
	Right digit only, disregard Left digit display.		1, 2, 3, 4, 5, 6, 7, indicate that the Capstan motor "CUE, FF, Forward slow" commands received by IC6001.	
	Right digit only, disregard Left digit display.		8, 9, u, A, -, n, L, and no display indicate that the Capstan motor "Reverse, Rew, Reverse Slow" commands received by IC6001.	
	Left digit only, disregard Right digit display.		1, 3, 5, 7, 9, A, n and no display indicate that the cylinder motor "ON" command received by IC6001.	

Fig. S23 Detail Service Data Number

1-3-5. Timing Chart from Mode SW to System control IC6001

System control IC6001 senses the mechanism position through the Mode SW.

Fig. S24 shows the timing for Service Mode Number 2.

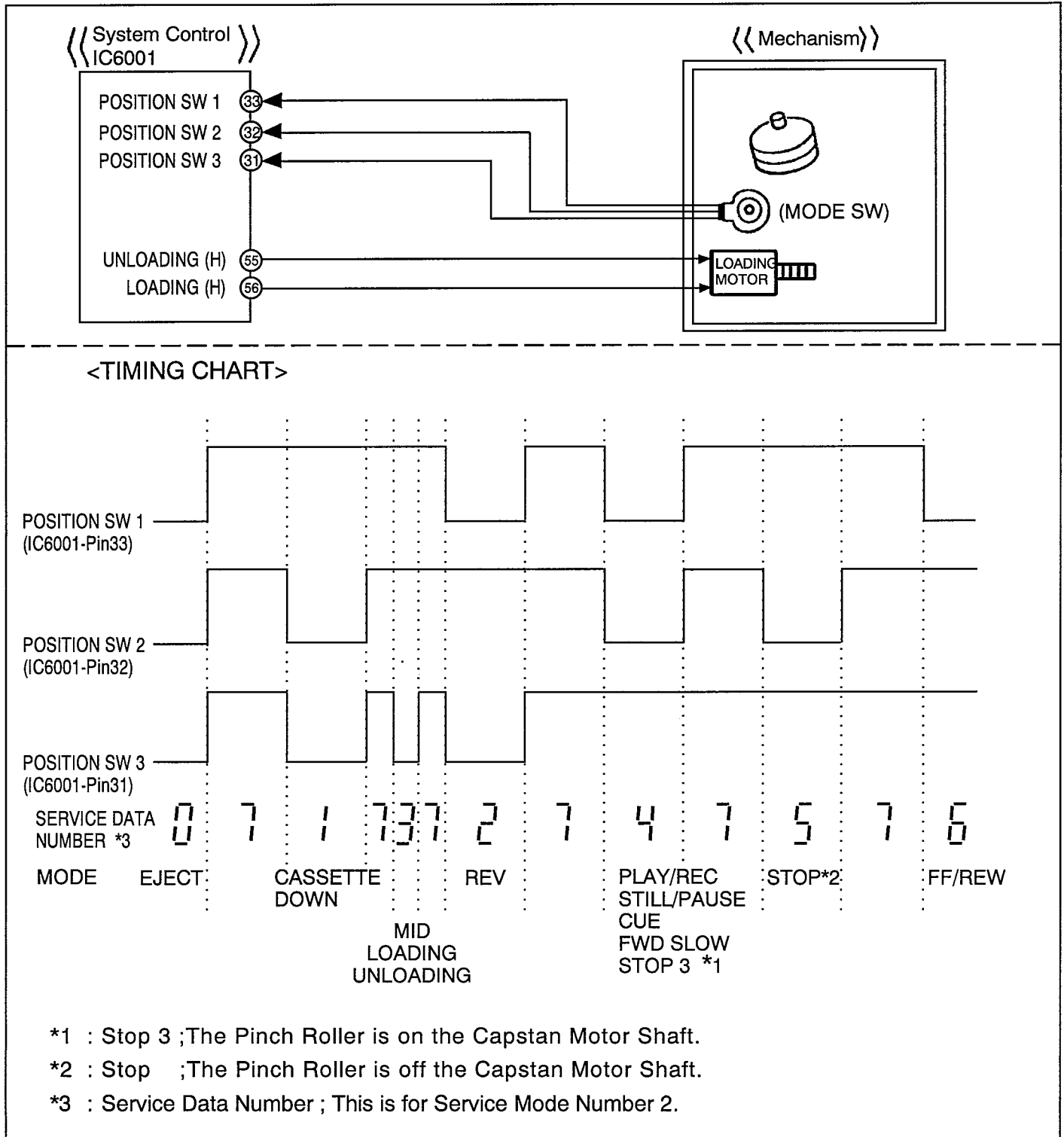


Fig. S24 Timing Chart of Mode SW

1-3-6. Input / Output Chart For IC6001 (M37776V1BV)

Pin Number	Input/Output	Port Name	Function														
2	I	DEW SES	This port is more than 1.36 V during detecting the dew formation.														
3	I	DURTY HEAD	Envelope input for detecting the clog on Video Head.														
4	I	HIFI-JAPAN HIFI-NTSC HIFI-PAL NORMAL-PAL NORMAL-JAPAN NORMAL-NTSC	Audio mode and destination setting port. <table><tr><th>INPUT VOLTAGE</th><th>AUDIO MODE AND DESTINATION</th></tr><tr><td>MORE THAN 4.0 V</td><td>HIFI-JAPAN (FOR JAPAN)</td></tr><tr><td>3.0 V ~ 4.0 V</td><td>HIFI-NTSC (FOR NORTH AMERICA, BRASIL)</td></tr><tr><td>2.5 V ~ 3.0 V</td><td>HIFI-PAL (FOR ARGENTINA)</td></tr><tr><td>2.0 V ~ 2.5 V</td><td>NORMAL-PAL (FOR ARGENTINA)</td></tr><tr><td>1.0 V ~ 2.0 V</td><td>NORMAL-JAPAN (FOR JAPAN)</td></tr><tr><td>LESS THAN 1.0 V</td><td>NORMAL-NTSC (FOR NORTH AMERICA, BRASIL)</td></tr></table>	INPUT VOLTAGE	AUDIO MODE AND DESTINATION	MORE THAN 4.0 V	HIFI-JAPAN (FOR JAPAN)	3.0 V ~ 4.0 V	HIFI-NTSC (FOR NORTH AMERICA, BRASIL)	2.5 V ~ 3.0 V	HIFI-PAL (FOR ARGENTINA)	2.0 V ~ 2.5 V	NORMAL-PAL (FOR ARGENTINA)	1.0 V ~ 2.0 V	NORMAL-JAPAN (FOR JAPAN)	LESS THAN 1.0 V	NORMAL-NTSC (FOR NORTH AMERICA, BRASIL)
INPUT VOLTAGE	AUDIO MODE AND DESTINATION																
MORE THAN 4.0 V	HIFI-JAPAN (FOR JAPAN)																
3.0 V ~ 4.0 V	HIFI-NTSC (FOR NORTH AMERICA, BRASIL)																
2.5 V ~ 3.0 V	HIFI-PAL (FOR ARGENTINA)																
2.0 V ~ 2.5 V	NORMAL-PAL (FOR ARGENTINA)																
1.0 V ~ 2.0 V	NORMAL-JAPAN (FOR JAPAN)																
LESS THAN 1.0 V	NORMAL-NTSC (FOR NORTH AMERICA, BRASIL)																
5	I	UDD4/UDD2 TDD4/TDD2 LDD4/LDD2	Cylinder driver and video Head selection port. <table><tr><th>INPUT VOLTAGE</th><th>CYLINDER DRIVER AND VIDEO HEAD</th></tr><tr><td>MORE THAN 4.0 V</td><td>UDD 4 HEAD</td></tr><tr><td>3.0 V ~ 4.0 V</td><td>UDD 2 HEAD</td></tr><tr><td>2.5 V ~ 3.0 V</td><td>TDD 2 HEAD</td></tr><tr><td>2.0 V ~ 2.5 V</td><td>TDD 4 HEAD</td></tr><tr><td>1.0 V ~ 2.0 V</td><td>LDD 2 HEAD</td></tr><tr><td>LESS THAN 1.0 V</td><td>LDD 4 HEAD</td></tr></table>	INPUT VOLTAGE	CYLINDER DRIVER AND VIDEO HEAD	MORE THAN 4.0 V	UDD 4 HEAD	3.0 V ~ 4.0 V	UDD 2 HEAD	2.5 V ~ 3.0 V	TDD 2 HEAD	2.0 V ~ 2.5 V	TDD 4 HEAD	1.0 V ~ 2.0 V	LDD 2 HEAD	LESS THAN 1.0 V	LDD 4 HEAD
INPUT VOLTAGE	CYLINDER DRIVER AND VIDEO HEAD																
MORE THAN 4.0 V	UDD 4 HEAD																
3.0 V ~ 4.0 V	UDD 2 HEAD																
2.5 V ~ 3.0 V	TDD 2 HEAD																
2.0 V ~ 2.5 V	TDD 4 HEAD																
1.0 V ~ 2.0 V	LDD 2 HEAD																
LESS THAN 1.0 V	LDD 4 HEAD																
6	I	NORMAL/SERVICE TEST2/TEST	NORMAL/SERVICE/TEST2/TEST mode setting port. <table><tr><th>INPUT VOLTAGE</th><th>MODE</th></tr><tr><td>MORE THAN 4.0 V</td><td>NORMAL</td></tr><tr><td>2.5 V ~ 4.0 V</td><td>SERVICE</td></tr><tr><td>1.0 V ~ 2.5 V</td><td>TEST2</td></tr><tr><td>LESS THAN 1.0 V</td><td>TEST</td></tr></table>	INPUT VOLTAGE	MODE	MORE THAN 4.0 V	NORMAL	2.5 V ~ 4.0 V	SERVICE	1.0 V ~ 2.5 V	TEST2	LESS THAN 1.0 V	TEST				
INPUT VOLTAGE	MODE																
MORE THAN 4.0 V	NORMAL																
2.5 V ~ 4.0 V	SERVICE																
1.0 V ~ 2.5 V	TEST2																
LESS THAN 1.0 V	TEST																
7	I	S-PHOTO	This port receives the signal when supply photo sensor detects the tape end.														
8	I	T-PHOTO	This port receives the signal when take-up photo sensor detects the tape beginning.														
9	I	TRACKING ENVE	Playback envelope input for tracking adjustment.														
10	O	T SES LED (L)	Sensor LED drive signal output. When this port supplies the low signal, the sensor LED is lit.														
11	O	CURRENT LIMIT	Cpstan motor current limiter control.														
12	O	CAP. R/S/F	Capstan rotation direction control. REVERSE : HIGH STOP : MIDDLE FORWARD : LOW														
13	O	ART V/H/N	This port supplies artificial vertical sync signal to stabilize the picture in special playback mode.														
14	O	NC	Not Used														
15	O	ROTARY SW	Rotary switching signal output.														
16	O	HEAD AMP SW	Head amp switching signal output.														
17	I	ENVE. SELECT	This port receives the playback envelope signal level to select the video head in special playback mode.														
18	O	VIDEO H. SW	Video head switching signal output.														

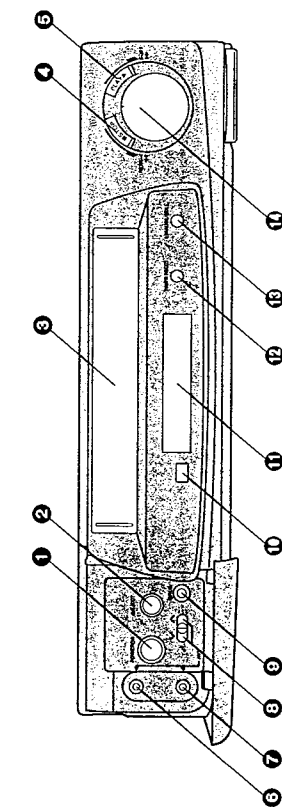
Pin Number	Input/Output	Port Name	Function																																				
19	O	AUDIO H. SW	HIFI audio head switching signal output.																																				
20	O	D. REC (H)	Video signal recording on/off control.																																				
21	O	C. EMPHASYS (H)	HIFI audio recording current control signal before starting the recording. During TEST mode, this port is low.																																				
22	O	NC	Not Used																																				
23	O	NC	Not Used																																				
24	O	VIDEO EE (L)	This port is low during EE mode.																																				
25	I / O	EE/VV/TRICK	Special playback mode control. MEMORY MODE WITH PLAYBACK MODE : LOW SPECIAL PLAYBACK MODE : LOW PLAYBACK MODE : MIDDLE EE MODE : HIGH																																				
26	O	BIAS (L)	Normal audio recording control. D.REC BIAS (L) → ← 0 – 30 msec → ← 200 – 300 msec																																				
27	I	BR (H) / NTSC	Destination setting port. (Classify North America and Brasil in the pin 4). NORTH AMERICA and BRASIL have been set : BRASIL in the pin 4 and this port is high. NORTH AMERICA and BRASIL have been set : N.AMERICA in the pin 4 and this is low.																																				
28	O	FM MUTE (H)	This port is high during special playback (CUE, REV, SLOW, STILL) mode.																																				
29	O	AI (L)	AI playback control. select AI mode based on the voltage of TRACKING ENVE.																																				
30	O	TV (L) / VTR (H)	TV / VTR switch output.																																				
31	I	POSITION SW1	<table><tr><th>P. SW3</th><th>P. SW2</th><th>P. SW1</th><th>POSITION (MODE) NAME</th></tr><tr><td>0</td><td>0</td><td>0</td><td>EJECT</td></tr><tr><td>0</td><td>0</td><td>1</td><td>CASSETTE DOWN</td></tr><tr><td>0</td><td>1</td><td>0</td><td>REV, REV SLOW</td></tr><tr><td>0</td><td>1</td><td>1</td><td>MID (LOADING/UNLOADING)</td></tr><tr><td>1</td><td>0</td><td>0</td><td>PLAY/REC, STILL/PAUSE, CUE, FWD SLOW STOP *1</td></tr><tr><td>1</td><td>0</td><td>1</td><td>STOP</td></tr><tr><td>1</td><td>1</td><td>0</td><td>FF/REW</td></tr><tr><td>1</td><td>1</td><td>1</td><td>INTERMEDIATE</td></tr></table>	P. SW3	P. SW2	P. SW1	POSITION (MODE) NAME	0	0	0	EJECT	0	0	1	CASSETTE DOWN	0	1	0	REV, REV SLOW	0	1	1	MID (LOADING/UNLOADING)	1	0	0	PLAY/REC, STILL/PAUSE, CUE, FWD SLOW STOP *1	1	0	1	STOP	1	1	0	FF/REW	1	1	1	INTERMEDIATE
P. SW3	P. SW2	P. SW1	POSITION (MODE) NAME																																				
0	0	0	EJECT																																				
0	0	1	CASSETTE DOWN																																				
0	1	0	REV, REV SLOW																																				
0	1	1	MID (LOADING/UNLOADING)																																				
1	0	0	PLAY/REC, STILL/PAUSE, CUE, FWD SLOW STOP *1																																				
1	0	1	STOP																																				
1	1	0	FF/REW																																				
1	1	1	INTERMEDIATE																																				
32	I	POSITION SW2																																					
33	I	POSITION SW3																																					
36	I	12M. START (H)	Clock selection port to release the reset.																																				
38	I	12MHz IN	Oscillator input.																																				
39	O	12MHz OUT	Oscillator output.																																				

Pin Number	Input/Output	Port Name	Function												
43	I	RESET (L)	This port is low while IC6001 is reset.												
44	I	SHORT DOWN	Transistor short detection port.												
45	I	KILLER (H)	PAL-M / NTSC detection port when SYSTEM SW has been set AUTO position and EE mode in BR model.												
46	I	PAL-M (H)	When SYSTEM SW has been set AUTO position and playback mode in BR model. PAL-M : HIGH NTSC : LOW												
47	O	LINE3 (A3) (H)	Input / output circuit control signal.												
48	O	LINE2 (A2) (H)	Input / output circuit control signal.												
49	O	LINE1 (A1) (H)	Input / output circuit control signal.												
50	I / O	L1 / L2 / TUNER	Input / output circuit control signal.												
51	O	POWER OFF (H)	Power on /off control.												
52	O	FF / REW (L)	This port is low during FF and REW modes.												
53	O	V. CHANGE (L)	This port is low while the loading motor torque is increased in FF and REW modes.												
54	O	LM LIMIT (H)	Loading motor torque limiter output.												
55	O	UNLOADING (H)	This port is high while the mechanism is unloaded.												
56	O	LOADING (H)	This port is high while the mechanism is loaded.												
57	I / O	6H / 4H / 2H	SP/LP/SLP control signal.												
58	I / O	L / R / STEREO	Audio mode control signal. <table><tr><th>CONTROL SIGNAL</th><th>AUDIO MODE</th></tr><tr><td>HIGH</td><td>L</td></tr><tr><td>MIDDLE</td><td>R</td></tr><tr><td>LOW</td><td>L + R</td></tr></table>	CONTROL SIGNAL	AUDIO MODE	HIGH	L	MIDDLE	R	LOW	L + R				
CONTROL SIGNAL	AUDIO MODE														
HIGH	L														
MIDDLE	R														
LOW	L + R														
59	O	NTSC (L)	This port is low during NTSC mode.												
60	O	PAL / AUTO / NTSC	System mode control signal. PAL : HIGH AUTO : MIDDLE NTSC : LOW												
61	I / O	EE BIL (M) / EX (L)	Bilingual control signal.												
62	I / O	HIFI / MIX / NOR.	Audio mode control signal. <table><tr><th>CONTROL SIGNAL</th><th>AUDIO MODE</th></tr><tr><td>HIGH</td><td>HIFI</td></tr><tr><td>MIDDLE</td><td>MIX</td></tr><tr><td>LOW</td><td>NORMAL</td></tr></table>	CONTROL SIGNAL	AUDIO MODE	HIGH	HIFI	MIDDLE	MIX	LOW	NORMAL				
CONTROL SIGNAL	AUDIO MODE														
HIGH	HIFI														
MIDDLE	MIX														
LOW	NORMAL														
63	I	STEREO (L)	Tuner audio mode detection port. <table><tr><th>TUNER AUDIO</th><th>STEREO</th><th>BILINGUAL</th></tr><tr><td>STEREO</td><td>L</td><td>H</td></tr><tr><td>BILINGUAL</td><td>H</td><td>L</td></tr><tr><td>MONAURAL</td><td>H</td><td>H</td></tr></table>	TUNER AUDIO	STEREO	BILINGUAL	STEREO	L	H	BILINGUAL	H	L	MONAURAL	H	H
TUNER AUDIO	STEREO	BILINGUAL													
STEREO	L	H													
BILINGUAL	H	L													
MONAURAL	H	H													
64	I	BILIN (L)													

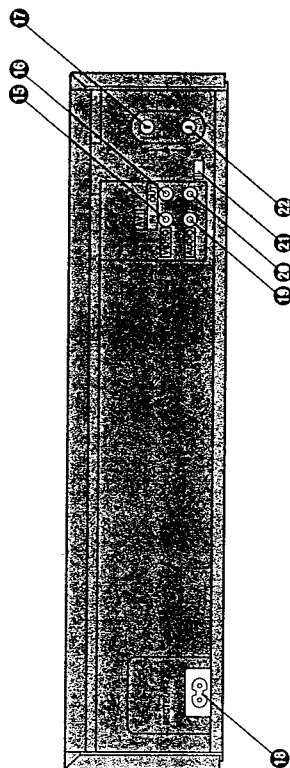
Pin Number	Input/Output	Port Name	Function																				
65	O	SSB. DATA. OUT	Audio and Video SSB control signal.																				
66	I	ABS NORM (L) /A. AJUST	Compulsory normal audio mode and audio automatic adjustment control.																				
67	O	SSB. CLOCK	Audio and Video SSB control signal.																				
68	O	S. DATA. OUT	Serial data output.																				
69	I	S. DATA IN	Serial data input.																				
70	O	S. CLOCK	Serial clock output.																				
71	O	FWD X2 (H)	This port is high during audio double speed.																				
72	O	AAA. OFF (H)	This port is low during audio automatic adjustment mode.																				
73	O	NC	Not Used																				
74	O	T. SAVE (H)	Timer microprocessor reset control.																				
75	O	CUE / REV / V2 (H)	This port is high during special playback mode (CUE, REV, DOUBLE SPEED PLAYBACK).																				
76	O	NC	Not Used.																				
79	I	S. REEL. PULSE	Supply reel pulse input.																				
80	I	T. REEL. PULSE	Take-up reel pulse input.																				
81	I	SSB. ON (H)	<table><tr><th>SSB. ON</th><th>VIDEO / AUDIO</th><th>VIDEO SSB</th><th>AUDIO SSB</th></tr><tr><td>L</td><td>L</td><td>X</td><td>X</td></tr><tr><td>L</td><td>H</td><td>O</td><td>X</td></tr><tr><td>H</td><td>L</td><td>X</td><td>O</td></tr><tr><td>H</td><td>H</td><td>O</td><td>O</td></tr></table>	SSB. ON	VIDEO / AUDIO	VIDEO SSB	AUDIO SSB	L	L	X	X	L	H	O	X	H	L	X	O	H	H	O	O
SSB. ON	VIDEO / AUDIO	VIDEO SSB		AUDIO SSB																			
L	L	X		X																			
L	H	O		X																			
H	L	X		O																			
H	H	O	O																				
83	I	VIDEO / AUDIO																					
82	I	ABS TV (L)	This port is low during compulsory TV mode.																				
87	I	S TAB (L)	This port is low while the cassette tape with safety tad is inserted.																				
100	O	LINE A MODE (L)	AUTO TRACKING detection control.																				

Controls and Connections

This gives a detailed explanation of the function of each button, switch and connection socket.



- 1 POWER On/Off**
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still connected to the main AC power.
- 2 EJECT**
To eject a video cassette.
- 3 Cassette Compartment**
Insert a video cassette here.
- 4 STOP**
To stop any playback or recording.
- 5 PLAY**
To start playback. "▶" is lit.
For the repeat playback function.
- 6 VIDEO IN (AV2)**
To connect a video cable to a video camera or another video recorder.
- 7 AUDIO IN (AV2)**
To connect an audio cable to a video camera or another video recorder.
- 8 V < >**
To select the required program position (TV station).
- 9 REC**
To start a recording.
- 10 Infra-red Remote Control Receiver Window**
- 11 Display**
- 12 TIMER REC**
To turn the timer recording function on and off.
It is lit or not lit.
Once operating timer recording function, the normal VTR operation is not possible unless this button is set to off.
- 13 PAUSE/STILL**
In the stop mode: Still picture (Shuttle mode).
During playback: Still picture (Shuttle mode).
During recording: To interrupt recording.
- 14 Shuttle Ring**
In the stop mode: To rewind or fast forward the tape.
In the playback mode:
To search picture backward or forward.
In the still playback mode:
To adjust playback speed backward or forward.
In the rewind or fast forward mode:
To obtain high speed picture.

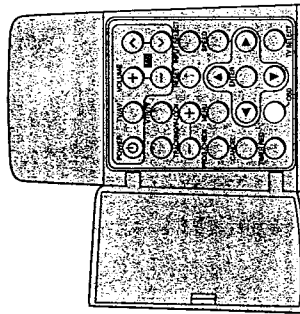
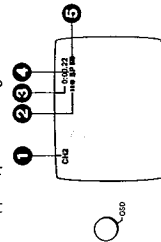


- 15 VIDEO IN (AV1)**
To connect a video cable to a video camera or another video recorder.
- 16 VIDEO OUT**
To connect a video cable to a TV or another video recorder.
- 17 RF IN**
To connect to the external antenna.
- 18 AC IN~**
To connect to the main power supply.
- 19 AUDIO IN (AV1)**
To connect an audio cable to a video camera or another video recorder.
- 20 AUDIO OUT**
To connect an audio cable to a TV or another video recorder.
- 21 L/H**
Used to select the RF Converter Channel.
- 22 RF OUT**
To connect to the antenna terminal on a TV set.

On Screen Display

Press OSD to make the On Screen Display appear on the TV screen.

- To make this display disappear, press OSD again.



- 1 Program Position (Channel)
- 2 Tape Running Display

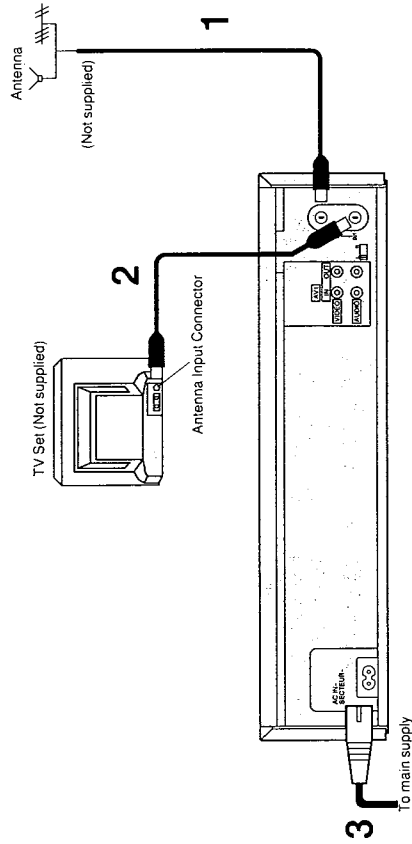
Stop, Eject	◀◀
Rewind, Review	▶▶
Fast Forward, Cue	▶
Playback	⏮
Still Playback	⏭
Recording	●
Recording Pause	⏸
Slow Playback	⏪
Repeat Playback	R

Connections

This tells you how to connect the VTR to an antenna, TV, etc.

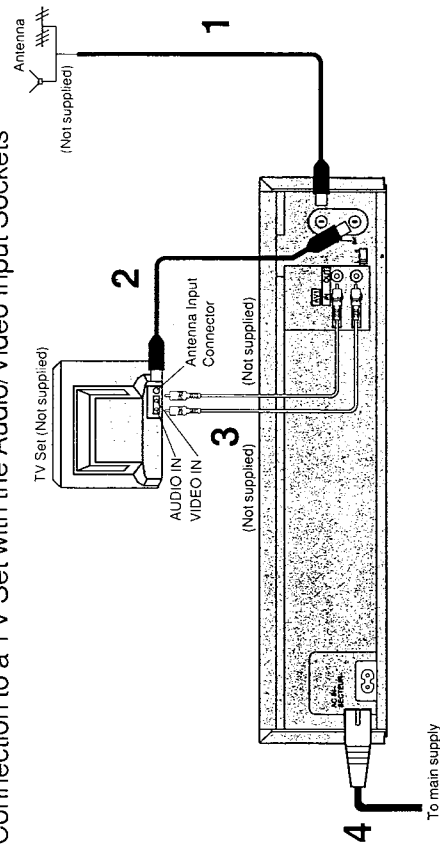
Basic Connections

The following connections are required to record and play back the VTR through a TV set:



- Use the plug adaptor supplied if it is needed to fit the shape of the power outlet which will be used.

Connection to a TV Set with the Audio/Video Input Sockets



To main supply

Tuning the TV to your VTR

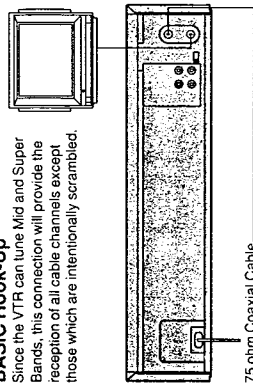
Cable Connection

Cable-VTR-TV (For CATV/PAY Channels Recording/Playback)

The VTR has an extended range, and can tune the Low-Band, Mid-Band, Super-Band, Hyper-Band, Ultra-Band and Special cable channels (Channels A-5-A-1, A-W, AA-EFF, GGG-WWW, WWW+1-WWW+12, 100-125, 5A). Also, the VTR can tune to any of the 56 UHF channels (14-69). Refer to **Storing TV Broadcasts into your VTR** on page 14.

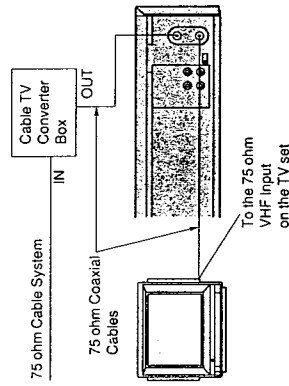
BASIC Hook-Up

Since the VTR can tune Mid and Super Bands, this connection will provide the reception of all cable channels except those which are intentionally scrambled.

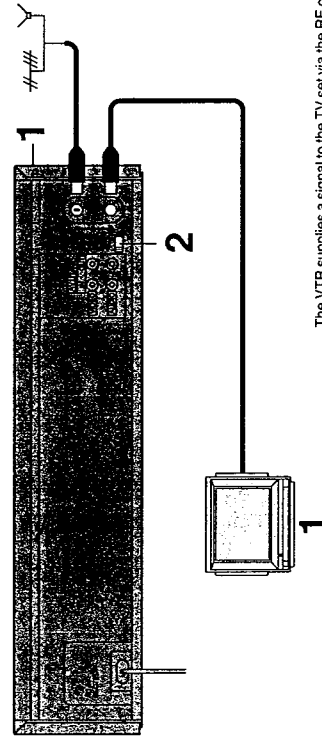


However, if you subscribe to a special channel which is scrambled—you will probably have a descrambler box for proper reception. The VTR by itself cannot properly receive a scrambled program since it does not contain a descrambler. In order for the VTR to properly receive a scrambled program, your existing descrambler must be used. There are two commonly used methods of connection in this case.

Typical Cable System Hook Ups with Cable Converter/Descrambler Boxes



The above cable hook-up allows VTR-TV functions except for viewing one channel while recording another.



The VTR supplies a signal to the TV set via the RF coaxial cable on channel US 3 or 4.
It is possible to view the video picture on your TV in the same way that you watch TV broadcasts.
If you have connected the VTR to the TV through the video and audio input sockets then you do not need to follow the procedure mentioned below.

Operations

1 POWER ON

Turn on the TV and VTR.

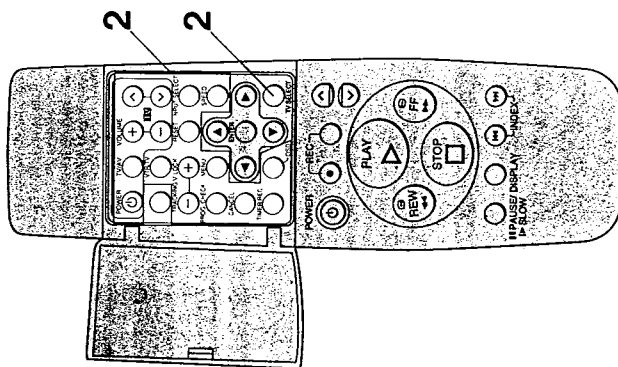
2 Select the video playback channel which is not occupied with any TV station.
L: Channel US3
H: Channel US4

Channel Reception Check

- 1 Set channel 3 or 4 on your TV (selected in step 2) in order to check a proper broadcast reception.
- 2 Press VTR/TV (on the remote controller) to select the VTR mode.
 - The "VTR" indicator appears on the VTR Display.
- 3 Select channels on the VTR that you would normally receive clearly in your area to check proper reception.

Setting the Remote Controller for Operation of your TV

You can operate some manufacturer of TVs (see following table) using the supplied Remote Controller after this setting up.



Preparation

Install the batteries in the remote controller. See page 7.

Operations

1 Turn on the TV.

2 Press corresponding operation button to your TV manufacturer (see following table) while keeping TV SELECT pressed.

- If setting is correct, TV will be turned off automatically.

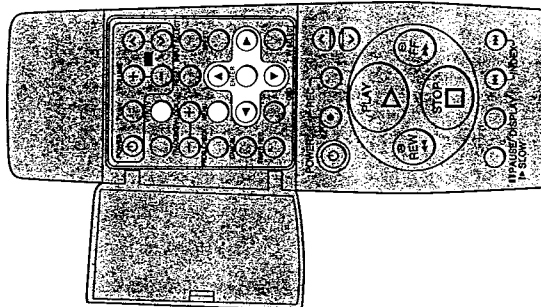
Note:

Some TV models cannot be operated using this remote controller.

Language Setting of On Screen Display

Preparation

- Confirm that the TV is on and the VTR viewing channel is selected.
- Turn on the VTR.
- Press VTR/TV to select the VTR mode.



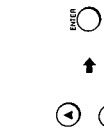
To select the Desired Language

Select one of the four languages displayed: English, Spanish, Portuguese and French.

1 Press MENU.



2 Select LANGUAGE (IDIOMA).



3 Select the desired language.

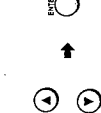


To View a Demonstration

1 Press MENU.



2 Select DEMONSTRATION.



- During Demonstration mode, all the On Screen Displays are displayed one after the other at about five second intervals.

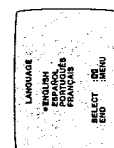
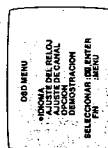
3 Press MENU to stop the Demonstration.



Note:

The Menu Screen has a blue background. However, if there is no signal during external input, the Menu Screen may change to black and white if MENU is pressed. This does not indicate a malfunction. If this happens, either input a signal during external input or switch to Tuner input.

On Screen Display



When the TV manufacturer is Panasonic/National, QUASAR, SHARP or GOLDSTAR:

When the TV's power is turned off in step 2 above, turn it back on and adjust the TV's volume using this remote controller. The volume can be adjusted if the operation button matches the manufacturer of TV. If it is not possible to adjust the TV's volume, try pressing the other operation button to match the manufacturer of TV again until the volume can be adjusted.

Storing TV Broadcasts into your VTR

Introduction

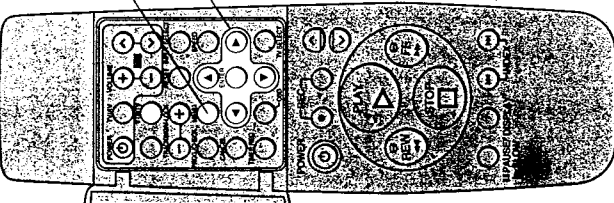
The VTR is fitted with its own tuner (just like a normal TV set) and can receive up to 181 TV broadcast stations.

Preparation

- Confirm that the TV is on and the VTR viewing channel is selected.
- Turn on the VTR and select the program position except A1 or A2.
- Press VTR/TV to select the VTR mode.

Auto Tuning procedure

Operations On Screen Display



- 1** Press **MENU**.
Screen Display: **OLD MENU**
LANGUAGE
CHANNEL SET
DESIGNATION
SELECT ENTER
END MENU
- 2** Press **ENTER**.
Screen Display: **OLD MENU**
LANGUAGE
CHANNEL SET
DESIGNATION
SELECT ENTER
END MENU
- 3** Press **ENTER**.
Screen Display: **CHANNEL SET**
ANTENNA SYSTEM
AUTO
MANUAL
SELECT ENTER
END MENU
- 4** Press **MENU**.
Screen Display: **ANTENNA SYSTEM**
TV
CATV
SELECT ENTER
END MENU
- 5** Press **ENTER**.
Screen Display: **CHANNEL SET**
ANTENNA SYSTEM
AUTO
MANUAL
SELECT ENTER
END MENU

2 Press **ENTER**.
Screen Display: **AUTO CHANNEL SET**
PROCEEDING
END MENU

Notes:

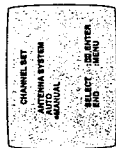
- The Auto Tuning is searching for TV station from VHF minimum to UHF maximum and memorizing the data for every program position. The other program positions are skipped.
- The Auto Tuning takes seven or more minutes to complete the search.
- If VTR is not correctly tuned by Auto Tuning, follow the procedure on next page.

Channel Plan TV mode

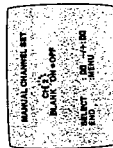
Manual System Setting Procedure

Follow steps 1 to 4 of the above procedure.

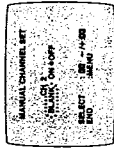
- 5 Select **MANUAL** by pressing **▲** or **▼** and then press **ENTER**.



- 6 Select **CH** by pressing **▲** or **▼** and then select the program position by pressing **◀** or **▶**.



- 7 Select **BLANK** by pressing **▲** or **▼** and then select OFF by pressing **◀** or **▶**.



- To select the blanking of a program position, select ON.
- Repeat steps 6 and 7 for another unoccupied program positions to skip during the selection of the program positions.

- 8 Press **MENU** three times.



CHANNEL DESIGNATIONS	CHANNEL RECEIVED OFF THE AIR	CHANNEL SELECTION & INDICATION ON VTR
VHF	2-13	2-13
UHF	14-69	14-69

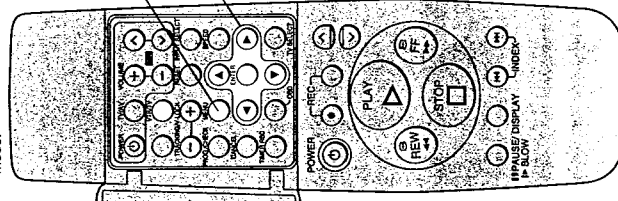
CHANNEL DESIGNATIONS	CATV CHANNEL RECEIVED FROM CABLE	CHANNEL SELECTION & INDICATION ON VTR
BROADCAST VHF	2-13	2-13
CATV LOW BAND	A-5-A-1	95-99
CATV MID/SUPER BANDS	A-W	14-36
CATV HYPER BAND	AA-FFF	37-65
ULTRA BAND	GGG-WWW WWW+1- WWW+12	66-94
	100-125	100-125
SPECIAL-CATV CHANNEL	5A	1

Setting the Clock of the VTR

The built-in clock is used to activate the timer for automatic recording and must be set to the correct time.
The built-in digital clock employs the 24-hour system.

For Example:
Date: 16th, October, 1999
Time: 20:15

- Preparation**
- Confirm that the TV is on and the VTR viewing channel is selected.
 - Turn on the VTR.
 - Press VTR/TV to select the VTR mode.



Operations On Screen Display

1 Press MENU.

2 Select CLOCK SET.

3 Set each item by pressing ▲ or ▼ and ►. Press ◀ to return to the previous item.

Set Year "1999".

Set Month "10".

Set Date "16".

Set Time "20:15".

When it is kept pressed, the indication changes in 30-minute steps.
There is no need to press ►.

4 Press MENU.

The clock will start.

Display Symbol

20:15

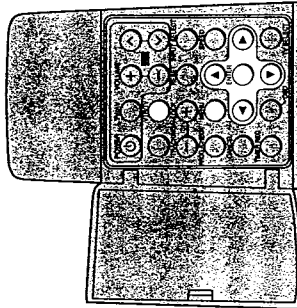
Note:
The clock operates for at least 1 year by its backup system in the event of power failure.

Time Reset Function
If the clock is less than two minutes slow or fast, it can easily be reset to the proper time.

- For example:**
Resetting the clock to 12:00.00.
- Select **CLOCK SET** on OSD MENU On Screen Display and press **ENTER**.
 - When the current clock display on the VTR is between 11:58 to 12:01, press **MENU** as soon as you hear the 12:00.00 time signal. This resets the time to 12:00.00.

Settings Using On Screen Display

- Preparation**
- Confirm that the TV is on and the VTR viewing channel is selected.
 - Turn on the VTR.
 - Press VTR/TV to select the VTR mode.



To select the Corresponding Cassette Tape Length for displaying the Approximate Remaining Tape Time

1 Press MENU.

2 Select **OPTION**.

3 Select **TAPE SELECT**.

4 Select the corresponding cassette tape length.

T120: For T30, -60, -90 and -120 tapes.
T180: For T140 and -160 tapes.
T180: For T180 tape.

To select the Desired Tape Speed for the Manual Recording

1 Select **TAPE SPEED** on **OPTION** On Screen Display.

2 Select the desired tape speed.

For Blue Background Function

When **BLUE BACK** is ON, the screen will always have a blue background when no signal is received or the received signal is very weak during Tuner input.

1 Select **BLUE BACK** on **OPTION** On Screen Display.

2 Select ON.

- When **BLUE BACK** is OFF, the blue background function does not work.
- It is not possible to record the blue picture of the blue background function.

After All Settings are selected
Press **MENU** twice to make On Screen Display disappear.

Timer Recording

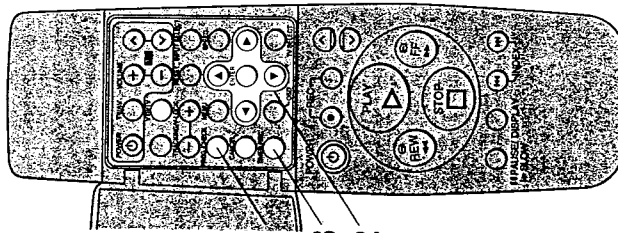
Up to 8 timer programs can be recorded up to one month in advance by setting the timer, including daily and weekly programs.

Preparation

- Confirm that the TV is on and the VTR viewing channel is selected.
- Insert a cassette tape with an intact erase prevention tab.
- Press VTR/TV to select the VTR mode.

For Example:

Timer program number: 1
Program position (channel): 2
Date: 27th, October
Starting time: 20:02
Ending time: 21:30
(Present date: 16th, October)



Operations On Screen Display

1

Select **Timer Program number "1"** by pressing **PROG./CHECK**, and then press **▶**.

CH	DATE	ON	OFF	SP
2	27	ON	OFF	SP

2

Set each item by pressing **▲** or **▼** and **▶**. Press **◀** to return to the previous item.

Set Program position (channel) "2"

CH	DATE	ON	OFF	SP
2	27	ON	OFF	SP

Set Date "27"

For daily and weekly recording, see page 23.

CH	DATE	ON	OFF	SP
2	27	ON	OFF	SP

Set Starting time (hour) "20"

CH	DATE	ON	OFF	SP
2	27	ON	OFF	SP

Set Starting time (minute) "02"

CH	DATE	ON	OFF	SP
2	27	ON	OFF	SP

Set Ending time (hour) "21"

CH	DATE	ON	OFF	SP
2	27	ON	OFF	SP

Set Ending time (minute) "30"

CH	DATE	ON	OFF	SP
2	27	ON	OFF	SP

Select Tape speed.

There is no need to press **▶**.

CH	DATE	ON	OFF	SP
2	27	ON	OFF	SP

3

To activate timer recording, press **TIMER REC.**

Setting for Weekly and Daily Timer Recording

In the Date setting step, press **▼** repeatedly until the desired day(days) is displayed.
(SU=Sunday, MO=Monday, TU=Tuesday, WE=Wednesday, TH=Thursday, FR=Friday, SA=Saturday)

Weekly recording

For example, Sunday

CH	DATE	ON	OFF	SP
2	SU	ON	OFF	SP

Daily recording

For this timer function, several groups of days can be selected.

- (A) Daily recording from Monday to Friday
- (B) Daily recording from Monday to Saturday
- (C) Daily recording from Sunday to Saturday

For example, (C)

CH	DATE	ON	OFF	SP
2	SU-SA	ON	OFF	SP

Timer Recording from External Signal Source

If Timer Recording is performed by a unit connected to the Audio/Video Input sockets, select the A1 or A2 indicator for the program position.

CH	DATE	ON	OFF	SP
2	A1	ON	OFF	SP

Setting other Programs in Succession

Repeat steps 1 and 2.

Checking a Timer Program

- The VTR must be turned on, or the timer recording indicator "IG" is lit.
- Confirm that the TV is on and the VTR viewing channel is selected.

1 Press **PROG./CHECK**.

CH	DATE	ON	OFF	SP
2	27	ON	OFF	SP

2 Press **VTR/TV** to select the VTR mode.



Cancelling a Timer Program

- The VTR must be turned on, or the timer recording indicator "IG" is lit.
- Confirm that the TV is on and the VTR viewing channel is selected.

1 Press **PROG./CHECK**.



CH	DATE	ON	OFF	SP
2	27	ON	OFF	SP

2 Press **VTR/TV** to select the VTR mode.



3 Press **PROG./CHECK** repeatedly until the desired timer program number is flashing on and off.



CH	DATE	ON	OFF	SP
2	27	ON	OFF	SP

4 Press **CANCEL**.



CH	DATE	ON	OFF	SP
2	27	ON	OFF	SP

Note:

If a timer recording is not performed to the end (due to insufficient tape or cancellation by the user), the programmed timer recording data will be cancelled from the memory by 4 a.m. two days later.
However, if the Timer Record Function is activated at that time, the programmed timer recording data will be cancelled at 4 a.m. the next day.

Before Requesting Service

Before requesting service, check the following points once again.

Message of On Screen Display			
MESSAGE	CAUSE	REMEDY	CHECKED
PLEASE PUT IN A VIDEO CASSETTE.	REC is pressed without cassette.	Put in a video cassette.	
PLEASE STOP THE TAPE.	CHANNEL SET is selected during playback.	Stop the tape.	
PLEASE SET THE CLOCK.	PROG./CHECK is pressed when the clock is not set.	Set the clock.	
PLEASE USE A CASSETTE WITH TAB.	REC is pressed without tab of Cassette.	Use a cassette with tab.	
NO TIMER RECORDING HAS BEEN SET.	TIMER REC is pressed with no timer programs.	Set timer recording.	
VTR IS IN THE TIMER STANDBY MODE.	POWER is pressed during timer standby mode.	Press TIMER REC to release from timer standby mode.	

Self Test Indication

This VTR has a self-diagnosis and display function. If the VTR detects trouble during installation or during use, the following indications automatically appear in the VTR display. Indications are displayed in the form of a single English letter plus two numbers such as [H01].

INDICATION	CAUSE	REMEDY	CHECKED
H□□	Some trouble has occurred. (Numbers following H and F differ according to the status of the VTR.)	Consult your dealer for further advice.	
F□□			

VTR will not operate correctly			
SYMPTOM	CAUSE	REMEDY	CHECKED
VTR display is not illuminated.	Main AC power is not connected.	Reconnect AC line cord to VTR.	
VTR display is illuminated but VTR will not operate.	VTR is in timer mode.	Press TIMER REC to operate VTR manually.	
Power is turned on but unit doesn't operate.	Safety devices are operating.	Disconnect AC line cord and wait for a short time. Reconnect AC line cord and check functions.	
A language which you do not understand appears on the TV screen.	The Language Setting is set to a language which you do not understand.	Press MENU and then ENTER , and use ▲ or ▼ to select a language you understand. Then press MENU twice. See page 13.	

Playback will not operate correctly			
SYMPTOM	CAUSE	REMEDY	CHECKED
Picture is noisy or not in color.	Tracking is not correct.	Adjust the tracking. See page 6.	
Horizontal bars or lines run down the screen.	TV set is not tuned to VTR.	Check TV tuning. See page 11.	
	Video heads are clogged or worn.	Consult your dealer for further advice.	

Recording will not operate correctly			
SYMPTOM	CAUSE	REMEDY	CHECKED
"  " indication flashes whenever recording is attempted.	Erase prevention tab on cassette is broken off.	Use tape with intact erase prevention tab, or cover tab hole with adhesive tape, if original recording is no longer required.	
Picture is recorded with noise or blank screen.	Antenna or antenna cable is defective.	Check antenna connection to VTR. See page 9. Check your normal TV picture. If there is no picture, check your antenna.	
	VTR is not correctly tuned.	Re-tune VTR. See page 14.	
	Clock or calendar is incorrectly set.	Check clock and calendar. Set to present time. (Note this is a 24 hour clock.) See page 16.	
Timer recording cannot be performed.	Recording start or end time setting is incorrect.	Set recording start and end time correctly.	
	VTR is not set for timer recording.	Press TIMER REC after programming for timer recording.	
AV external recordings cannot be made.	"A1" or "A2" is not selected.	Select "A1" or "A2".	
	External AV connections are incorrect.	Check that connections for external video and audio source are correct. See page 24.	

Remote controller will not work correctly			
SYMPTOM	CAUSE	REMEDY	CHECKED
Remote controller does not operate correctly.	Remote controller transmitter beam is not reaching VTR.	Ensure that remote controller is being pointed at VTR and that transmitter beam is not obstructed.	
	Distance is too far.	Use remote controller within 7 m of VTR. If this range is not possible, replace batteries.	
	Batteries are exhausted.	Replace batteries. Note precaution for replacement on page 7.	
	Batteries are incorrectly fitted with (+/-) reversed.	Fit batteries correctly as shown on page 7.	

SECTION 2

ADJUSTMENT PROCEDURES

2-1. DISASSEMBLY METHOD

2-1-1. DISASSEMBLY FLOW CHART

This flow chart indicates disassembly steps of the cabinet parts and the circuit boards in order to gain access to part for servicing. When reassembling, perform the steps in the reverse order.

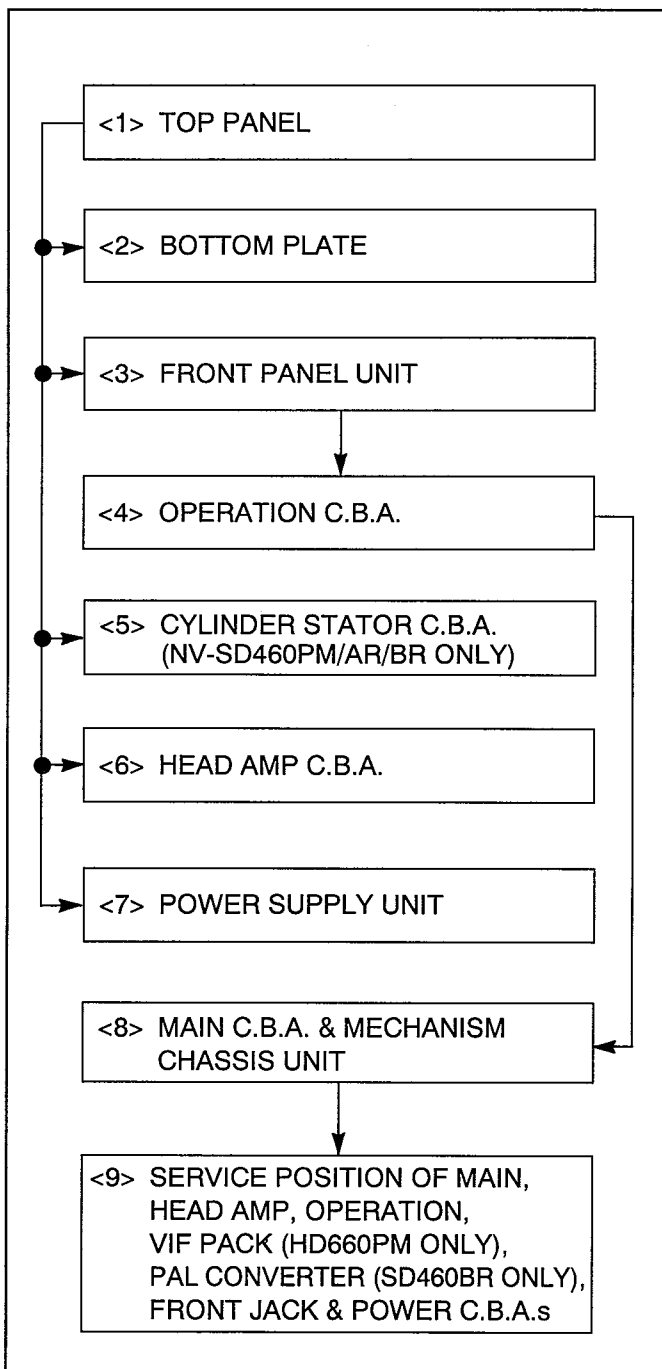


Fig. D1

<1> REMOVAL OF THE TOP PANEL

Remove 2 Screws (A)

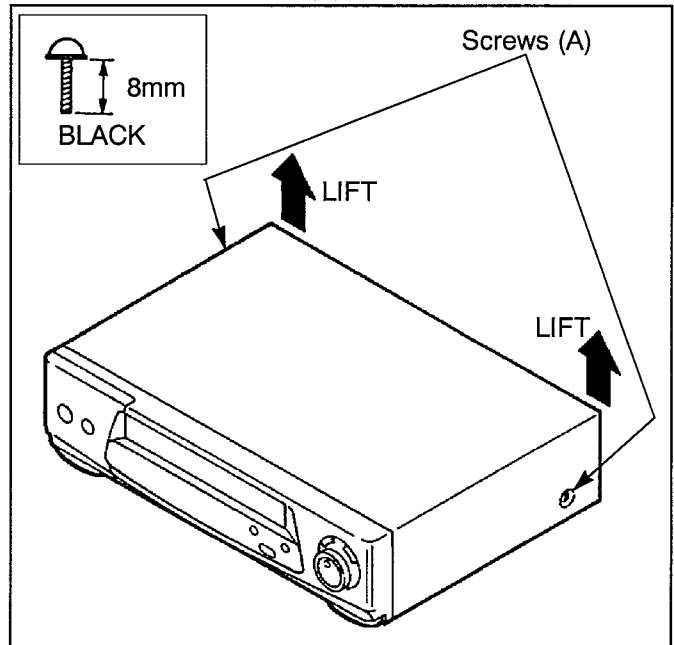


Fig. D2

<2> REMOVAL OF THE BOTTOM PLATE

Unlock 6 Tabs (B)

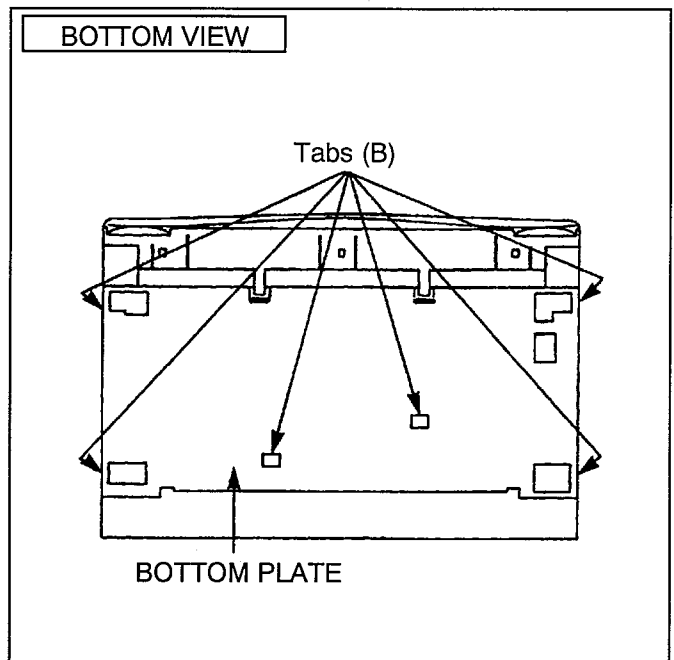


Fig. D3

<3> REMOVAL OF THE FRONT PANEL UNIT

Remove SHUTTLE RING and JOG DIAL (C)
 Unlock 9 Tabs (D)

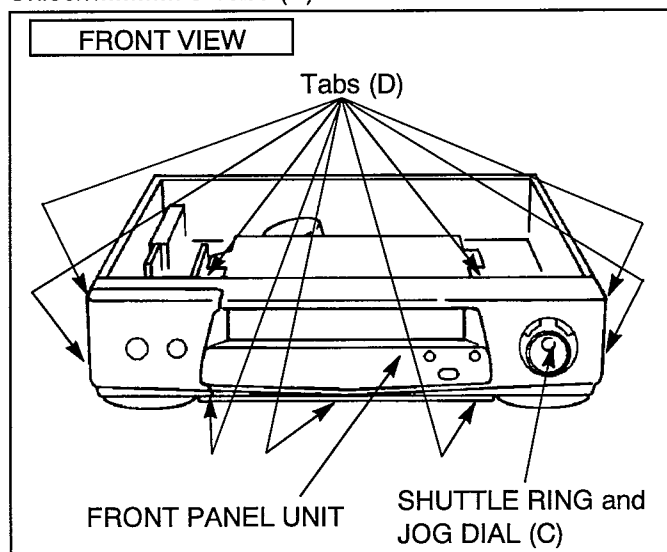


Fig. D4

<4> REMOVAL OF THE OPERATION C.B.A.

Disconnect Connector P7901 (E)
 Unlock 2 Tabs (F)

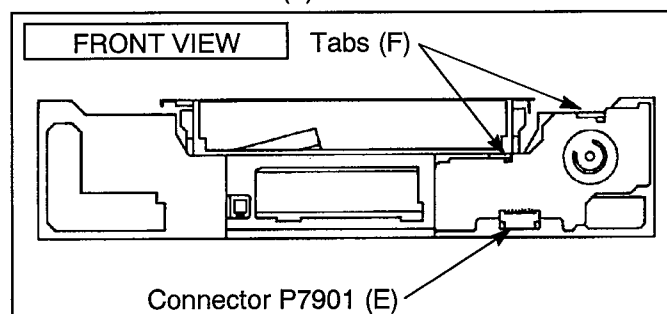


Fig. D5

<5> REMOVAL OF THE CYLINDER STATOR C.B.A. (NV-SD460PM/AR/BR ONLY)

Remove 2 Screws (G)

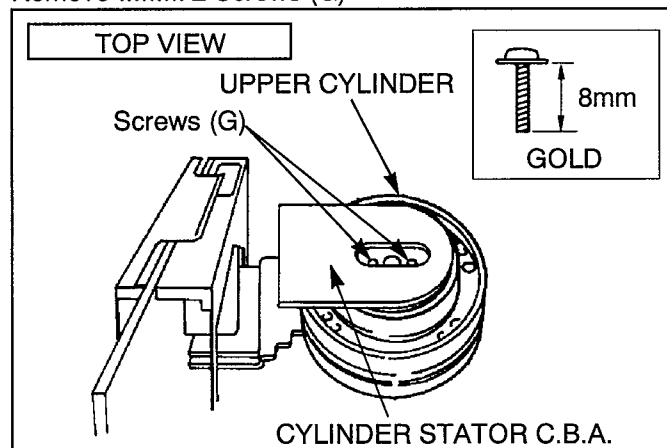


Fig. D6

<6> REMOVAL OF THE HEAD AMP C.B.A.

Remove Holder (H)
 Remove Screw (I)
 Disconnect 3 Connectors (J) (P501, P502, P504)

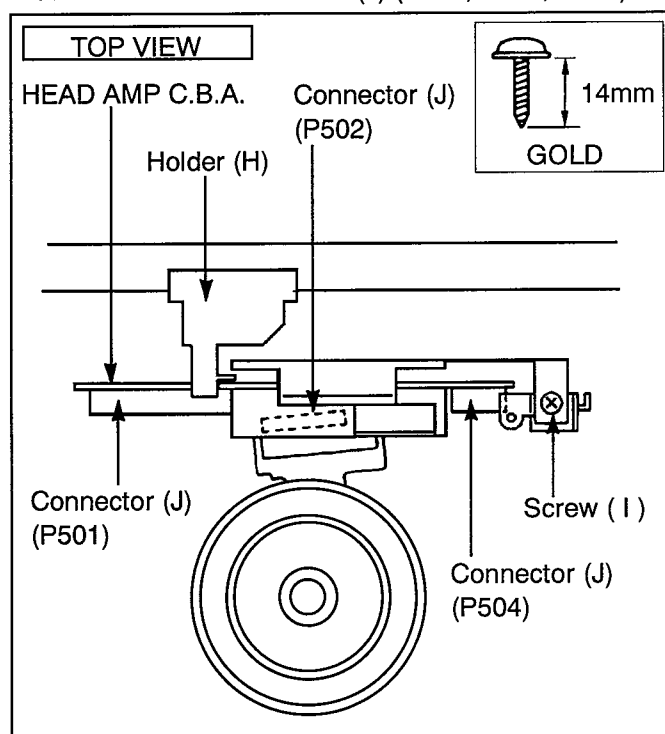


Fig. D7

<7> REMOVAL OF THE POWER SUPPLY UNIT

Unlock 3 Tabs (K)
 Unlock 2 Tabs (L)
 Disconnect Bridge connector (M)

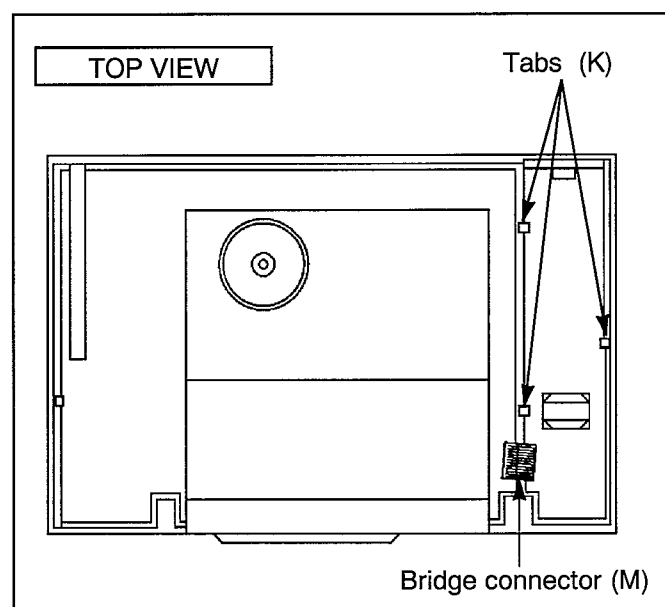


Fig. D8-1

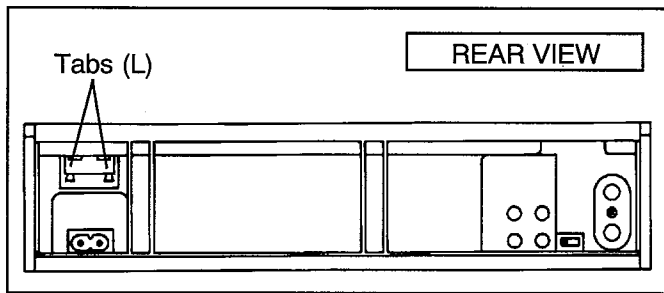


Fig. D8-2

<8> REMOVAL OF THE MAIN C.B.A. & MECHANISM CHASSIS UNIT

MECHANISM UNIT

Remove 3 Screws (N)

Remove Screw (O)

MAIN C.B.A.

Remove Screw (P)

Unlock 2 Tabs (Q)

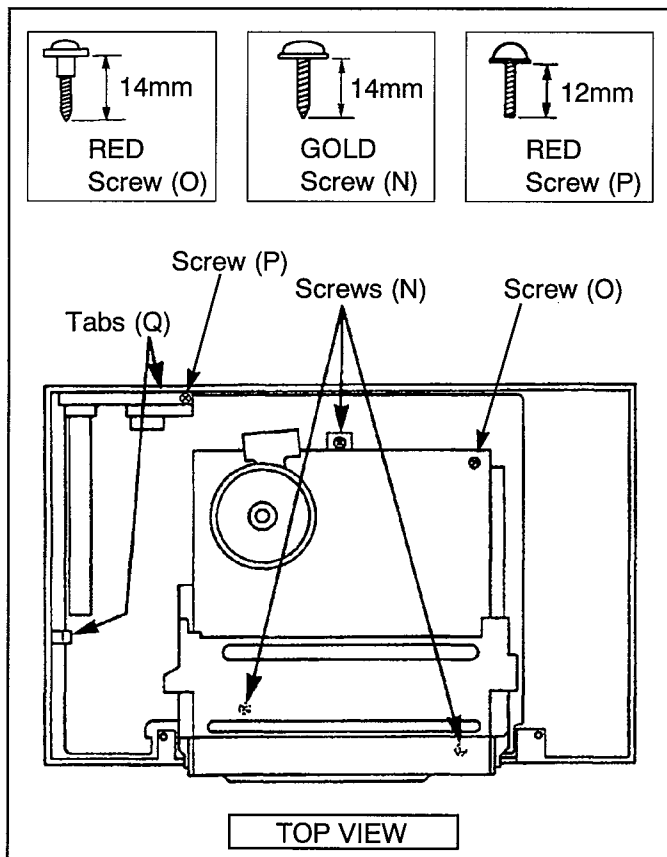


Fig. D9

<9> SERVICE POSITION OF MAIN, HEAD AMP, OPERATION, VIF PACK (HD660PM ONLY), PAL CONVERTOR (SD460BR ONLY), FRONT JACK & POWER C.B.A.s

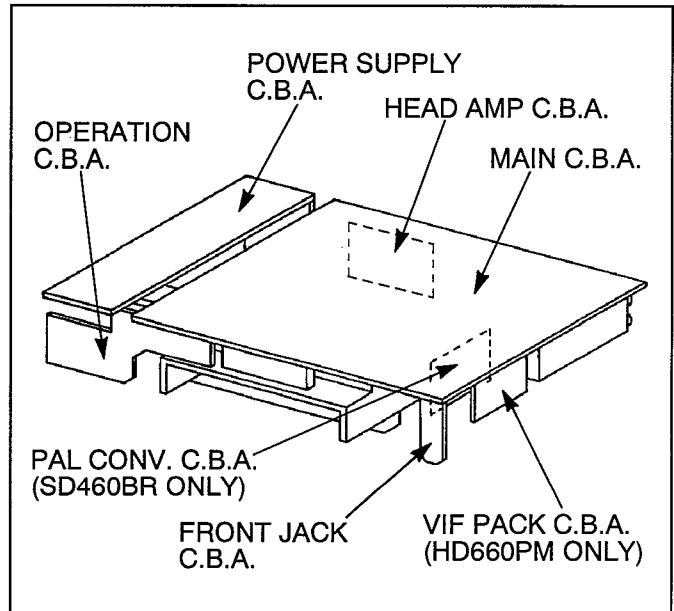


Fig. D9

2-2. MECHANICAL ADJUSTMENT PROCEDURES

Refer to the K-Mechanism Service Manual (Order No.:VRD9307M131).

CAUTIONS:

To make the Adjustment Mode for Tape Interchangeability, Press the FF and EJECT buttons simultaneously 3 times to set the service mode 2. After finishing the adjustment, release the Service mode 2.

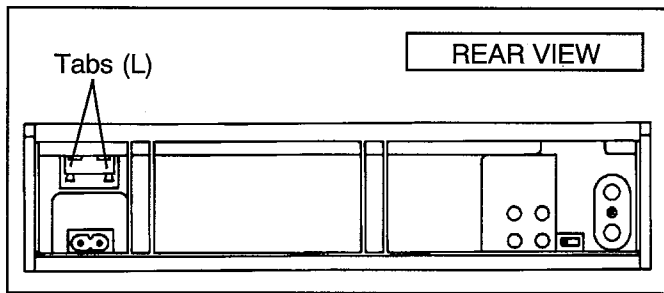


Fig. D8-2

<8> REMOVAL OF THE MAIN C.B.A. & MECHANISM CHASSIS UNIT

MECHANISM UNIT

Remove 3 Screws (N)

Remove Screw (O)

MAIN C.B.A.

Remove Screw (P)

Unlock 2 Tabs (Q)

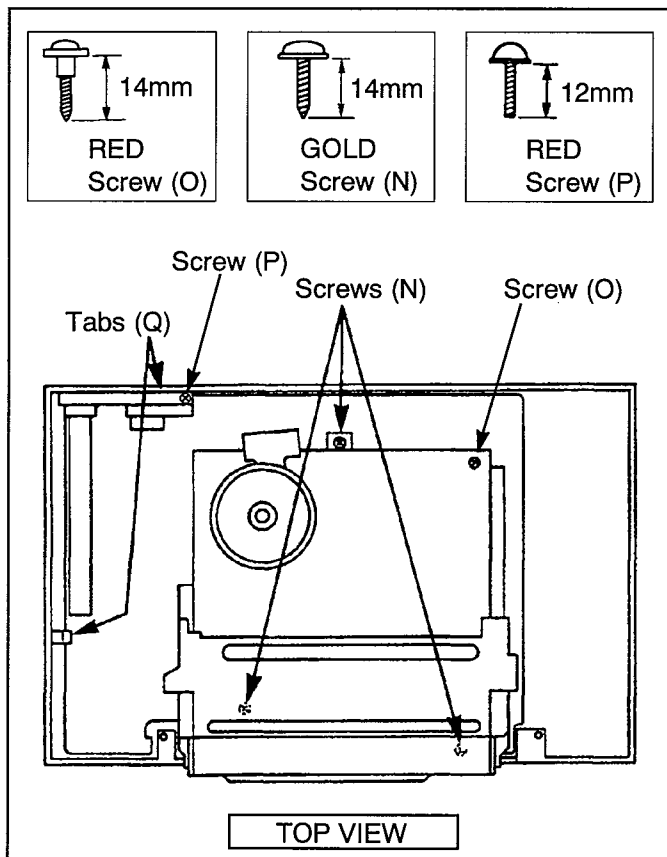


Fig. D9

<9> SERVICE POSITION OF MAIN, HEAD AMP, OPERATION, VIF PACK (HD660PM ONLY), PAL CONVERTOR (SD460BR ONLY), FRONT JACK & POWER C.B.A.s

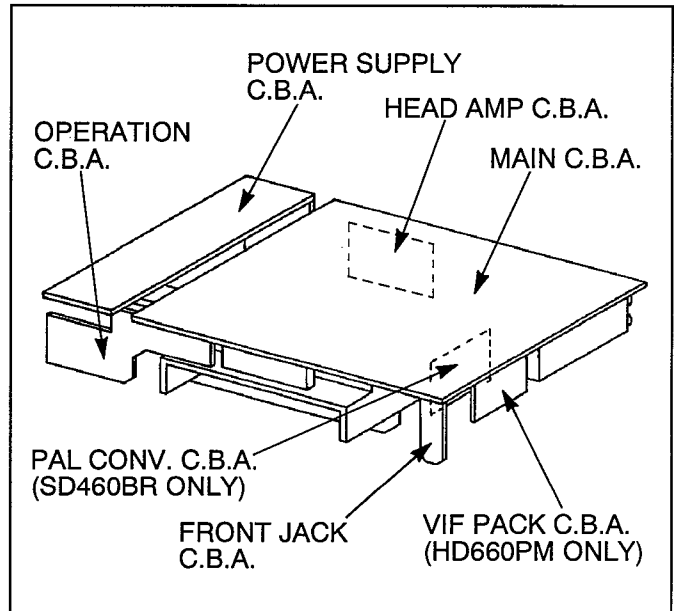


Fig. D9

2-2. MECHANICAL ADJUSTMENT PROCEDURES

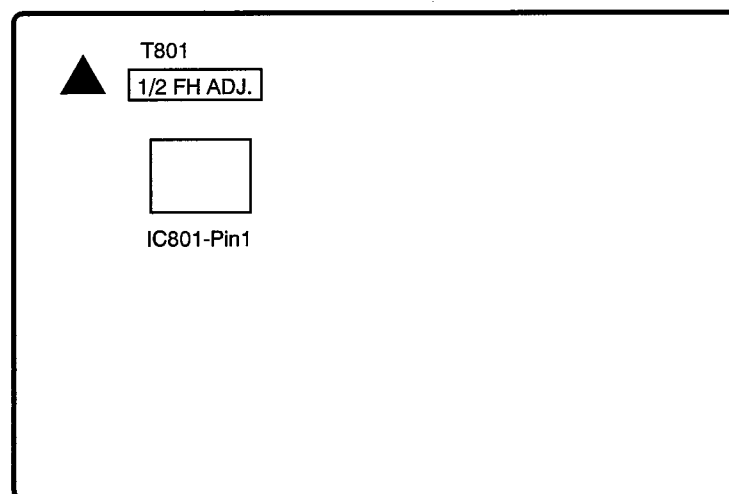
Refer to the K-Mechanism Service Manual (Order No.:VRD9307M131).

CAUTIONS:

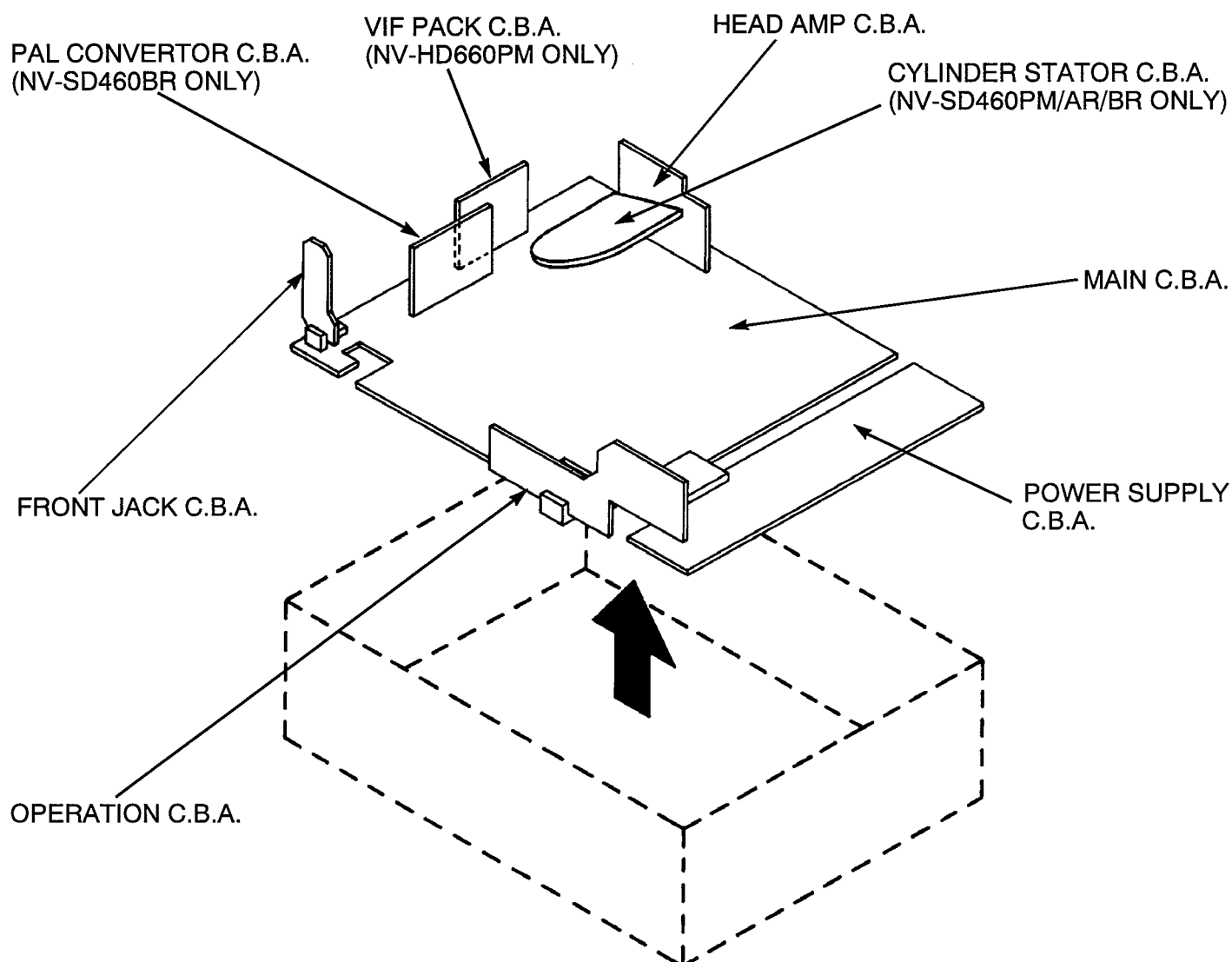
To make the Adjustment Mode for Tape Interchangeability, Press the FF and EJECT buttons simultaneously 3 times to set the service mode 2. After finishing the adjustment, release the Service mode 2.

LOCATION OF TEST POINTS & CONTROLS

PAL CONVERTER C B A (NV-SD460BR ONLY)



CIRCUIT BOARD LAYOUT



2-3. ELECTRICAL ADJUSTMENT PROCEDURES

This section provides complete adjustment procedures required for electric circuits of VCR.

2-3-1. TEST EQUIPMENT

To perform electrical adjustments following equipment is required.

1. Dual-Trace Oscilloscope. (More than 35 MHz)
Voltage Range : 0.005 – 5 V / div
Frequency Range : DC – 35 MHz
Probes : 10:1
2. Frequency Counter.
Frequency Range : 0 – 10 MHz
Probes : 1:1
3. Universal Counter.
4. Video Sweep Generator.
5. Sine Wave Generator.
6. Video Pattern Generator.
7. VHS Alignment Tape. (PAL : VFJ8125H3F)
(NTSC : VFM8080HQFP)
8. VHS Blank Tape.
9. Plastic Tip Driver.
10. Vacuum Tube Volt Meter (V.T.V.M)
11. Monitor
12. Digital Voltmeter.
13. Power Supply.

2-3-2. HOW TO READ ADJUSTMENT PROCEDURES

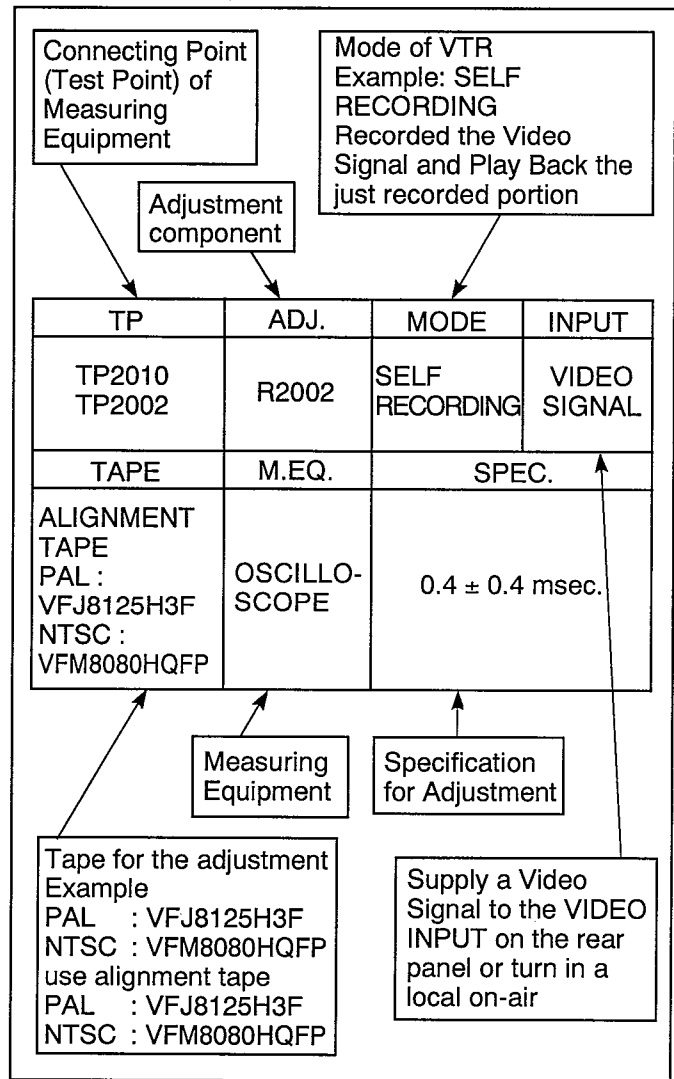


Fig.E1

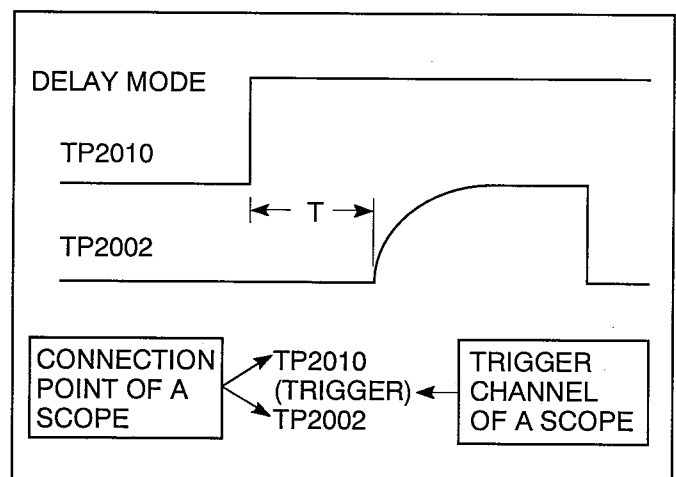


Fig.E2

SERVO SECTION

2-3-3. PG SHIFTER ADJUSTMENT

PROCEDURES	DISPLAY
1. To set Service Mode 2, press FF and EJECT buttons simultaneously three times.	2 00 00
2. Press EJECT button for more than three seconds. Digit of minute is put out light.	2 00 00
3. Indicate 1 in the digit of minute by pressing the channel up/down buttons. When the channel up button is pressed, 1 will be indicated in the digit of minute.	2 01 00
4. Insert VHS Alignment Tape. (NTSC : VFM8080HQFP) (PAL : VFJ8125H3F)	2 01 00
5. This adjustment is automatically started after VCR goes PLAY mode. (During the adjustment, the picture can be observed on the monitor.)	2 01 00
6. When this adjustment is terminated, the following operation will be activated. Adjustment completed : The tape will be ejected. Adjustment incompleted : Indicates " F20 " Check the Servo/System Control circuit and Cylinder unit.	
7. To release Service Mode 2, press FF and EJECT buttons simultaneously sixth times or turn off the power.	

Fig.E3

VIDEO SECTION

2-3-4. 1/2 fH PAL KILLER ADJUSTMENT (NV-SD460BR ONLY)

TP	ADJ.	MODE	INPUT
IC801-Pin1	T801	(SELF RECODED) PLAYBACK	
TAPE	M.EQ.	SPEC.	
BLANK TAPE	OSCILLOSCOPE	MAXIMIZE AMPLITUDE ("A" PORTION : NEGATIVE PEAK)	

Note :

Set the SYSTEM SW to PAL-M.

1. Record PAL-M colour bar and playback the just recorded portion.
2. Adjust T801 until the amplitude of the signal at the Pin1 (IC801) is maximum.
(To take "A" position negative peak.)

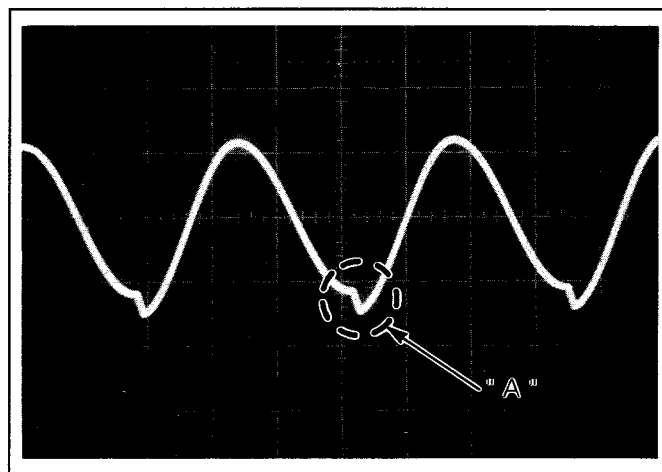


Fig.E4

SECTION 3

BLOCK DIAGRAMS & SCHEMATIC DIAGRAMS

3-1. ABBREVIATIONS

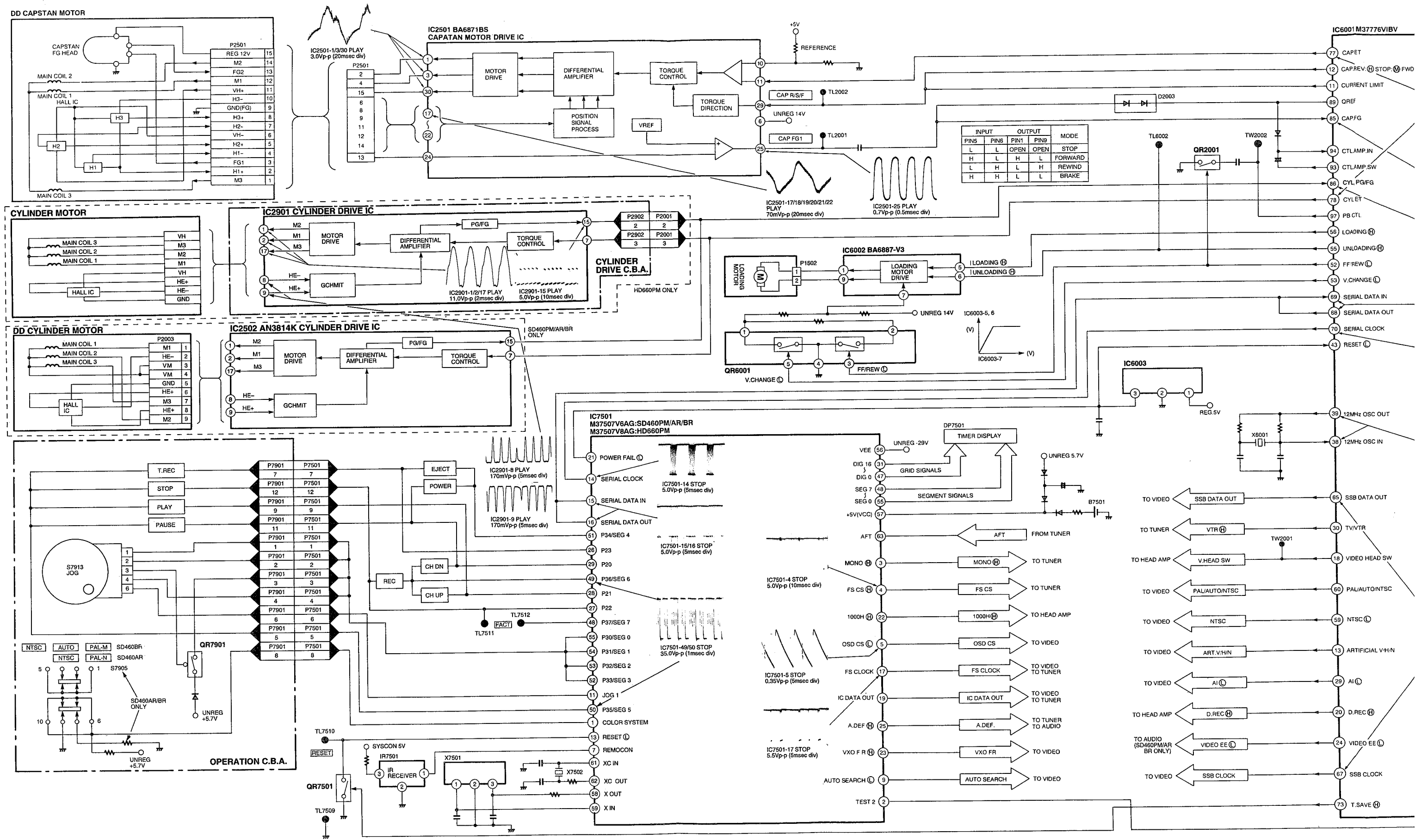
443NT [L]	4.43 NTSC ①	BIL. [H]	BILINGUAL ⑥
A. COMP	AUDIO COMPONENT SIGNAL	BIL/M1[L]	BILINGUAL ①
A. COMPO	AUDIO COMPONENT SIGNAL	BS CLOCK	BS CLOCK
A. D.P [L]	AUDIO DUBBING PAUSE ①	BS DATA	BS DATA
A. D/L [L]	AUDIO DUBBING PAUSE ①	BS LCH IN	BS L CHANNEL INPUT
A. DEF [S]	AUDIO DEFEAT	BS MIX [H]	BS MIX ⑥
A.DEF [S] [L]	AUDIO DEFEAT	BS MON [H]	BS MONITOR ⑥
A. DUB P [L]	AUDIO DUBBING PAUSE ①	BS MONI [H]	BS MONITOR ⑥
A. DUB [H]	AUDIO DUBBING ⑥	BS RCH IN	BS R CHANNEL INPUT
A. ERASE	AUDIO ERASE	BS VIDEO	BS VIDEO SIGNAL
A. H. SW	AUDIO HEAD SWITCHING PULSE	BS VIDEO/BS1	BS VIDEO SIGNAL
A. HEAD [R]	AUDIO HEAD (REC)	BS [H]	BS ⑥
A. HEAD [W]	AUDIO HEAD (PLAY)	BS. LEVEL	BS LEVEL
A. IN [L]	AUDIO INPUT (L)	BS. M [H]	BS MONITOR ⑥
A. IN [R]	AUDIO INPUT (R)	BS/VTR [H]	BS/VTR ⑥
A. MUT [H]	AUDIO MUTE ⑥	BUS CLK	BUS CLOCK
A. MUTE [H]	AUDIO MUTE ⑥	BUS LSN	BUS LISTEN
A. OUT [L]	AUDIO OUTPUT (L)	BUS TLK	BUS TALK
A. OUT [R]	AUDIO OUTPUT (R)	BUZZER	BUZZER
A. RF OUT	AUDIO RF SIGNAL OUTPUT	CAP EC	CAPSTAN TORQUE CONTROL
A/V/S. DATA	AV SW/SERIAL DATA	CAP M GND	CAPSTAN MOTOR GND
AC ONLINE	AC ONLINE	CAP. ET	CAPSTAN TORQUE CONTROL
AC. O/EE. H	AC ONLINE/EE ⑥	CAP. FG1	CAPSTAN FG1 PULSE
AFC S C	AFC S CURVE	CAP. FG2	CAPSTAN FG2 PULSE
AFC [S]	AFC S CURVE	CAS. SW	CASSETTE SW
AFC. DEF	AFC DEFEAT	CCN	PLAYBACK CONTROL SIGNAL (-)
ARFC OUT	AUDIO RF SIGNAL OUTPUT	CCP	PLAYBACK CONTROL SIGNAL (+)
ART. V	ARTIFICIAL VERTICAL SYNC SIGNAL	CHM	CONTROL SIGNAL (+)
ART. V. MM	ARTIFICIAL VERTICAL SYNC SIGNAL MONO MULTI	CHP	CONTROL SIGNAL (-)
ART. V/H/N	ARTIFICIAL VERTICAL SYNC SIGNAL ⑥ / NORMAL	CINEM [L]	CINEMA ①
AT. V/H/N	ARTIFICIAL VERTICAL SYNC SIGNAL	CINEMA [L]	CINEMA ①
ATSW/TEST/NOR/SE	TEST/NORMAL/SERVICE	CINEMA/MIX	CINEMA/MIX
AUDIO IN [L]	AUDIO INPUT (L)	CKL	RATCH LOCK
AUDIO IN [R]	AUDIO INPUT (R)	CKS	SHIFT LOCK
AUDIO OUT [L]	AUDIO OUTPUT (L)	CL	CLOCK
AUDIO OUT [R]	AUDIO OUTPUT (R)	CLK	CLOCK
AUDIO SELECT [H]	AUDIO SELECT ⑥	CLK (C.G)	CLOCK
AUDIO. L	AUDIO (L)	CLOCK. IN	CLOCK INPUT
AUDIO. R	AUDIO (R)	CLP	CLAMP*
AV CNT	AV CONTROL	COL/B/W/NOR	COLOUR/BLACK & WHITE/NORMAL
AV CTL	AV CONTROL	COLOR [H]	COLOUR ⑥
AV CTL/S. CLK	AV CONTROL/SERIAL CLOCK	CONV	CONVERTOR
AV. C.M.	AV CONTROL MODE	CS	CHIP SELECT
AVCNT/METER. R	AV CONTROL/LEVEL METER(R)	CTL GND	CONTROL GND
AVSW/METER. L	AV SW/LEVEL METER (L)	CTL HEAD [+]	CONTROL HEAD (+)
B MODE. H	B MODE ⑥	CTL HEAD [-]	CONTROL HEAD (-)
B.G.P	BURST GATE PULSE	CTL[+]	CONTROL HEAD (+)
BACKUP 5V	BACK UP 5V	CTL[-]	CONTROL HEAD (-)
BAND. U.E.	BAND U	CUE BIAS	CUE BIAS
BANDVL. D	BAND VL	CURRENT LIM	CURRENT LIMITER
BI/MI [L]	BILINGUAL/MIX ①	CYL ET	CYLINDER TORQUE CONTROL
BIL	BILINGUAL	CYL GND	CYLINDER GND
BIL [L]	BILINGUAL ①	D.F.M. REC [H]	DELAYED FM RECORDING ⑥
		D. FM REC [L]	DELAYED FM RECORDING ①
		D. GND	DIGITAL GND

D. REC [H]	DELAYED RECORDING ④	H.SYNC	HORIZONTAL SYNC
D4/S. LED	D4/STILL LED	H. AMP. SW	HEAD AMP SW PULSE
D4/STILLED	D4/STILL LED	H. P <R>	HEAD PHONE (R)
DAC [CLK]	TUNER DAC (CLOCK)	H. P <L>	HEAD PHONE (L)
DAC/FSCS	TUNER DAC/FS CHIP SELECT	H. P GND	HEAD PHONE GND
DAREC [H]	DELAYED AUDIO RECORDING ④	H. P OUT [L]	HEAD PHONE OUTPUT (L)
DATA	DATA	H. P OUT [R]	HEAD PHONE OUTPUT (R)
DECODER [L]	DECODER (L)	H. SW	HEAD SW PULSE
DECODER [R]	DECODER (R)	HEAD PHONE [L]	HEAD PHONE (L)
DEW	DEW	HEAD PHONE [R]	HEAD PHONE (R)
DEW SNS	DEW SENSOR	HEAD SW	HEAD SW
DFMRE [H]	DELAYED FM AUDIO RECORDING ④	HEATER [+]	HEATER (+)
E. REC 5V	EXCEPT RECORDING 5V	HEATER [-]	HEATER (-)
EC	ERROR TORQUE CONTROL	HSS	HORIZONTAL SYNC SIGNAL
ECR	ERROR TORQUE CONTROL	HTR [+]	HEATER (+)
	REFERENCE VOLTAGE	HTR [-]	HEATER (-)
EDT TRIG [L]	EDIT TRIGGER ①	I RFE	REFERENCE CURRENT
EDIT [H]	EDIT ④	ICL	CONTROL AGC CIRCUIT
EE [H]	EE ④	IF	INTERMEDIATE FREQUENCY
EE [H]/INS [M]	EE ④ /INSERT ④	IN SELA 1	INPUT SELECT A1 POSITION
EE. VV. TR	EE/VV/TRICK PLAY	IN SELA 2	INPUT SELECT A2 POSITION
EJECT. PO	EJECT POSITION	IN SELA 3	INPUT SELECT A3 POSITION
EJECT/DET	EJECT/REVERSE SLOW LOCK	INS L/R [L]	INSERT Lch/Rch ①
ENV. SEL	ENVELOPE SELECT	INS. [H]	INSERT ④
ENVE. OUT	ENVELOPE OUTPUT	INSEL A1	INPUT SELECT A1 POSITION
ENVE. SEL	ENVELOPE SELECT	INSEL A2	INPUT SELECT A2 POSITION
ENV SELECT	ENVELOPE SELECT	INSERT	INSERT
EP [H]	LP ④	INSERT [H]	INSERT ④
EP/LP [H]	LP ④	IO CS	INPUT/OUTPUT CHIP SELECT
EP/LP/SP	LP/SP	JOG1	JOG1
EP/SS [H]	LP/SLOW/STILL/STOP ④	JOG S3 LED/FOWRD	JOG LED/FORWARD LED
EPROMCS	EPROM CHIP SELECT	JOG/F. LED	JOG LED/FORWARD LED
EX. REC 5V	EXCEPT RECORDING 5V	JSB [H]	JSB ④
FF/REW [L]	FAST FORWARD/REWIND ①	JST. CLOCK	JUST CLOCK
FG1 IN	FG1 PULSE INPUT	JST. CLK	JUST CLOCK
FG2 IN	FG2 PULSE INPUT	JST. CLOCK	JUST CLOCK
FILTER ADJ.	FILTER ADJUSTMENT	L. OUT	Lch OUTPUT
FLY ERASE [H]	FLYING ERASE HEAD ON ④	L. CH [H]	Lch ④
FLY ON [H]	FLYING ERASE HEAD ON ④	L. CH [L]	Lch ①
FLY. E [H]	FLYING ERASE HEAD ON ④	LED (MAIN)	LED (MAIN)
FM MUT [H]	FM AUDIO MUTE ④	LED (STEREO)	LED (STEREO)
FM MUTE [H]	FM AUDIO MUTE ④	LED (SUB)	LED (SUB)
FM OUT [L]	FM OUTPUT (L)	LED CKL	LED SERIAL CLOCK
FM OUT [R]	FM OUTPUT (R)	LED CKS	LED SERIAL CLOCK
FM PACK OUT [L]	FM PACK OUTPUT (L)	LED DATA	LED SERIAL DATA
FM PACK OUT [R]	FM PACK OUTPUT (R)	LINE IN 1 [L]	LINE INPUT 1 (L)
FM/BS SEL [L]	FM/BS SELECT (L)	LINE IN 1 [R]	LINE INPUT 1 (R)
FM/BS SEL [R]	FM/BS SELECT (R)	LINE IN 2 [L]	LINE INPUT 2 (L)
FS. CLK	FS CLOCK	LINE IN 2 [R]	LINE INPUT 2 (R)
FUL. E [H]	FULL ERASE HEAD ON ④	LINE IN V	LINE INPUT VIDEO
FULL. E [H]	FULL ERASE HEAD ON ④	LINE IN [L]	LINE INPUT (L)
FULL. E. 12V	FULL ERASE 12V	LINE IN [R]	LINE INPUT (R)
GND [A]	GND (ANALOGUE)	LINE OUT [L]	LINE OUTPUT (L)
GND [TU]	GND (TUNER)	LINE OUT [R]	LINE OUTPUT (R)
GND/N. SW. 12V	GND/NON SW 12V	LP [H]	LP ④

LPTRI [L]	LP TRICK PLAY ①	P. OFF [L]	POWER OFF ①
Lch/A. DUB	Lch/AUDIO DUBBING	PAL [H]	PAL ②
M GND	MOTOR GND	PAL [L]/NTSC [H]	PAL ① /NTSC ②
M REG	MOTOR REGULATOR	PB ADJ. OUT	PLAYBACK ADJUST OUTPUT
MAIN OUT	MAIN OUTPUT	PB OUT	PLAYBACK OUTPUT
MAIN [L]	MAIN ①	PB. H	PLAYBACK ②
MAIN/MONO	MAIN/MONAUURAL	PFG	PG/FG
MAX IN	MAXIMUM INPUT	PHOTSN + B	PHOTO SENSOR + B
MES [H]	MESECAM ②	PICT. CNT	PICTURE CONTROL
MESE [H]	MESECAM ②	PLAY LED/RVS LED	PLAY LED/REVERSE LED
MESE [L]	MESECAM ①	PLAY. PO	PLAY POSITION
METER 5V	LEVEL METER 5V	PLAY/R.LED	PLAY LED/REVERSE LED
METER [L]	LEVEL METER (L)	PLY/DEW	PLAY/DEW ②
METER [R]	LEVEL METER (R)	POWER OFF [L]	POWER OFF ①
METER. L/AVS	LEVEL METER (L)	PREROLL [H]	PREROLL ②
METER. R/AVC	LEVEL METER (R)	PWRFAIL	POWER FAILURE DETECT
MI/BI [L]	MIX ② /BILINGUAL	R. CH [H]	Rch ②
MIC GND	MIC GND	R. CH [L]	Rch ①
MIC IN	MIC INPUT	R. ST	RESET
MIC IN [L]	MIC INPUT (L)	R/S/F	REVERSE ② /STOP ③ /FORWARD ①
MIC IN [R]	MIC INPUT (R)	RCH [H]	Rch ②
MIC [H]	MIC ②	REC 12V	RECORDING 12V
MIX [H]	MIX ②	REC CHROMA	RECORDING CHROMINANCE SIGNAL
MIX [H]/CINEMA [L]	MIX ② /CINEMA SOUND ①	REC H	RECORDING ②
MIX/ CINE	MIX ② /CINEMA SOUND ①	REC IN	RECORDING INPUT
MIX/CINEMA [L]	MIX ② /CINEMA SOUND ①	REC OUT [L]	RECORDING OUTPUT ①
MN. H/M. L	MONAUURAL ② /MAIN ①	REC START	RECORDING START
MN. H/MAI. L	MONAUURAL ② /MAIN ①	REC VR [C]	RECORDING VOLUME (COMMON)
MN2/MES. L	MONAUURAL 2/MESECAM ①	REC VR [L]	RECORDING VOLUME (L)
MODE SEL	AUDIO MODE SELECT	REC VR [R]	RECORDING VOLUME (R)
MODE SW	AUDIO MODE SW	REC Y	RECORDING LUMINANCE SIGNAL
MODE. S. IN	AUDIO MODE SELECT INPUT	REC [H]	RECORDING ②
MODE. S. OUT	AUDIO MODE SELECT OUTPUT	REC. C	RECORDING CHROMINANCE SIGNAL
MONO [H]	MONAUURAL ②	REC. Y	RECORDING LUMINANCE SIGNAL
MONO [H]/MAIN [L]	MONAUURAL ② /MAIN ①	REC/EE CTL	RECORDING/EE CONTROL
MONO2 [L]	MONAUURAL 2 ①	REEL-T	REEL PULSE(TAKE-UP)
MONO2/MESE[FM(L)]	MONAUURAL 2/MESECAM(FM ①)	REEL-S	REEL PULSE (SUPPLY)
MOTOR GND	MOTOR GND	REGULATOR FILTER	REGULATOR FILTER
MUTE	MUTE	RESET	RESET
N. A. REC [L]	NORMAL AUDIO RECORDING ①	REV M F/R	REVIEW MOTOR
N. SW 12V	NON SW 12V		FORWARD/REVERSE
N. SW. 5. DET	NON SW 5V DETECT	REV M V1	REVIEW MOTOR V1
NICAM	NICAM	REV M V2	REVIEW MOTOR V2
NICAM [L]	NICAM ①	REV MOTOR F/R	REVIEW MOTOR
NOL [H]	PAL ② /4.43 NTSC ③ /3.58 NTSC ①		FORWARD/REVERSE
NOR/SOFT [H]	NORMAL/SOFT TAPE PLAY ②	REV MOTOR V1	REVIEW MOTOR V1
NORMAL [H]	NORMAL ②	REV MOTOR V2	REVIEW MOTOR V2
NR BIAS	NR BIAS	REV MOTOR [+]	REVIEW MOTOR (+)
NTSC [L]	NTSC ①	REV MOTOR [-]	REVIEW MOTOR (-)
OCH	CONTROL AGC CIRCUIT	REV. M. GND	REVIEW MOTOR GND
OUT	OUTPUT	RF.CHROMA	RF CHROMINANCE SIGNAL
P-OFF [H]	POWER OFF ②	RF OUT	RF OUTPUT
P-OFF [L]	POWER OFF ①	RF Y	RF LUMINANCE SIGNAL
P. FAIL	POWER FAILURE DETECT	RF. Y. IN	RF LUMINANCE SIGNAL INPUT
P. OFF [H]	POWER OFF ②	RF. Y. OUT	RF LUMINANCE SIGNAL OUTPUT

ROTAR. SW	ROTARY SW	T. BUSCLK	TIMER BUS CLOCK
ROTARY	ROTARY SW	T. BUSLSN	TIMER BUS LISTEN
RST	RESET	T. BUSTLK	TIMER BUS TALK
RST [L]	RESET ①	T. END [L]	TAPE END ①
Rch/INST	Rch/INSERT	T. PHOTO	TAKE-UP PHOTO TRANSISTOR
S IN	SERIAL DATA INPUT	TAPE END [L]	TAPE END ①
S OUT	SERIAL DATA OUTPUT	TAPE END [L]/CAM	TAPE END ① /CAMERA PAUSE
S-PHOTO	SUPPLY PHOTO TRANSISTOR	TEST	TEST MODE
S-RL. PLS	SUPPLY REEL PULSE	TPZ	TRAPEZOIDAL WAVE CIRCUIT
S. CLK	SERIAL CLOCK	TRIC [L]	TRICK PLAY ①
S. CLK/AV	SERIAL CLOCK/AV	TRICK [L]	TRICK PLAY ①
S. DATA	SERIAL DATA	TRK. ENV	AUDIO TRACKING ENVELOPE DETECT
S. DATA/A	SERIAL DATA / AUDIO	TU. AUDIO	TUNER AUDIO
S. PHOTO	SUPPLY PHOTO TRANSISTOR	TU. GND	TUNER GND
S.TAB [L]	SAFETY TAB SW ON ①	TU. V. IN	TUNER VIDEO SIGNAL INPUT
S/P/N	SECAM/PAL/NTSC	TU. VIDEO	TUNER VIDEO
SC IN	SERIAL CLOCK INPUT	TUN NOR IN	TUNER NORMAL INPUT
SC OUT	SERIAL CLOCK OUTPUT	TUN R	TUNER AUDIO (R)
SCK SELECT	SERIAL CLOCK SELECT	TUN. AUDIO IN	TUNER AUDIO INPUT
SEL OUT [L]	SELECT OUTPUT (L)	TUNER 12V	TUNER 12V
SEL OUT [R]	SELECT OUTPUT (R)	TUNER L	TUNER AUDIO (L)
SHUTTLE 1	SHUTTLE 1	TUNER V IN	TUNER VIDEO SIGNAL INPUT
SIF	SOUND INTERMEDIATE FREQUENCY	TUNER [L]	TUNER AUDIO (L)
SLMUT [H]	INPUT SELECT MUTE ②	TUNER [N]	TUNER AUDIO (NORMAL)
SLNID [+]	SOLENOID (+)	TUNER [R]	TUNER AUDIO (R)
SLNID [-]	SOLENOID (-)	TUNER. 12	TUNER 12V
SLW TR. MM	SLOW TRACKING MONO MULTI	TUOFF [H]	TUNER OFF ②
SLW TR. REF	SLOW TRACKING REFERENCE	TV. AUDIO	TV AUDIO
	VOLTAGE	TV/VTR	TV/VTR
SNS. GND	SENSOR GND	TXTON [L]	TEXT ON ①
SOFT [H]	SOFT TAPE PLAY ②	U. REG45V	UNREGULATOR 45V
SOFT [H]/NORMAL	SOFT TAPE PLAY ② /NORMAL ②	UNREG	UNREGULATOR
SOLENOID ON [L]	SOLENOID ON ①	UNREG 19V	UNREGULATOR 19V
SP [H]	SP ②	V. REF	REFERENCE VOLTAGE
SP/L/SLP	SP/LP	V. EE [H]	VIDEO EE ②
SSS [L]	SLOW/STILL/STOP ①	V. EE [L]	VIDEO EE ①
STEREO LED	STEREO LED	VCO REF	REFERENCE OSCILLATOR
STEREO [H]	STEREO ②	VD. IN	VIDEO SIGNAL INPUT
STEREO [L]	STEREO ①	VD. OUT	VIDEO SIGNAL OUTPUT
STOP. PO	STOP POSITION	VIDEO EE [L]	VIDEO EE ①
STOP/5V	STOP POSITION/5V	VIDEO IN	VIDEO SIGNAL INPUT
STOP1/TAPE SEL	STOP1 POSITION/TAPE SELECT	VIDEO OUT	VIDEO SIGNAL OUTPUT
STOP1/PAL : ST	STOP 1 POSITION/PAL	VM	MOTOR VOLTAGE
STOP2. PO	STOP 2 POSITION	VM DOWN [L]	MOTOR VOLTAGE DOWN ①
STOP2 / S-TAB	STOP POSITION/SAFETY TAB SW	VSS	VERTICAL SYNC SIGNAL
STREO [H]	STEREO ②	VTR [H]	VTR ②
SUB BIAS	SUB BIAS	VTR. 12V	VTR 12V
SUB. SW	SUB SW	X IN	OSCILLATOR INPUT
SVHS CAS [L]	S-VHS CASSETTE ①	X OUT	OSCILLATOR OUTPUT
SW. 5. DET	SW 5V DETECT		
SYNC [L]	SYNC ①		
SYS CON 5V	SYSTEM CONTROL 5V		
SYSTEM	SYSTEM SW		
T-PHOTO	TAKE-UP PHOTO TRANSISTOR		
T-RL. PLS	TAKE-UP REEL PULSE		

3-2. SYSTEM CONTROL & SERVO SECTION BLOCK DIAGRAM

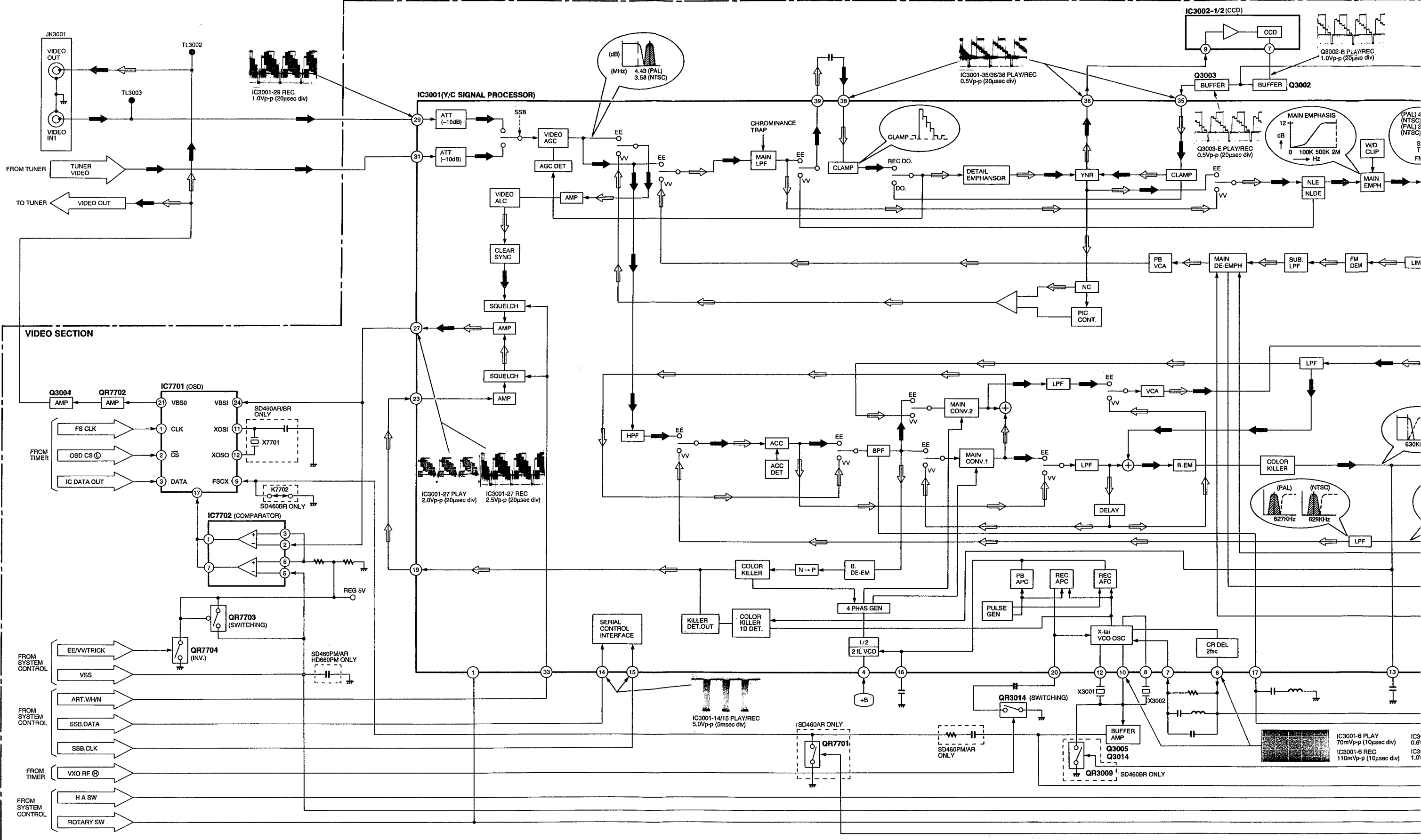




3-3 VIDEO SECTION BLOCK DIAGRAM

VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE

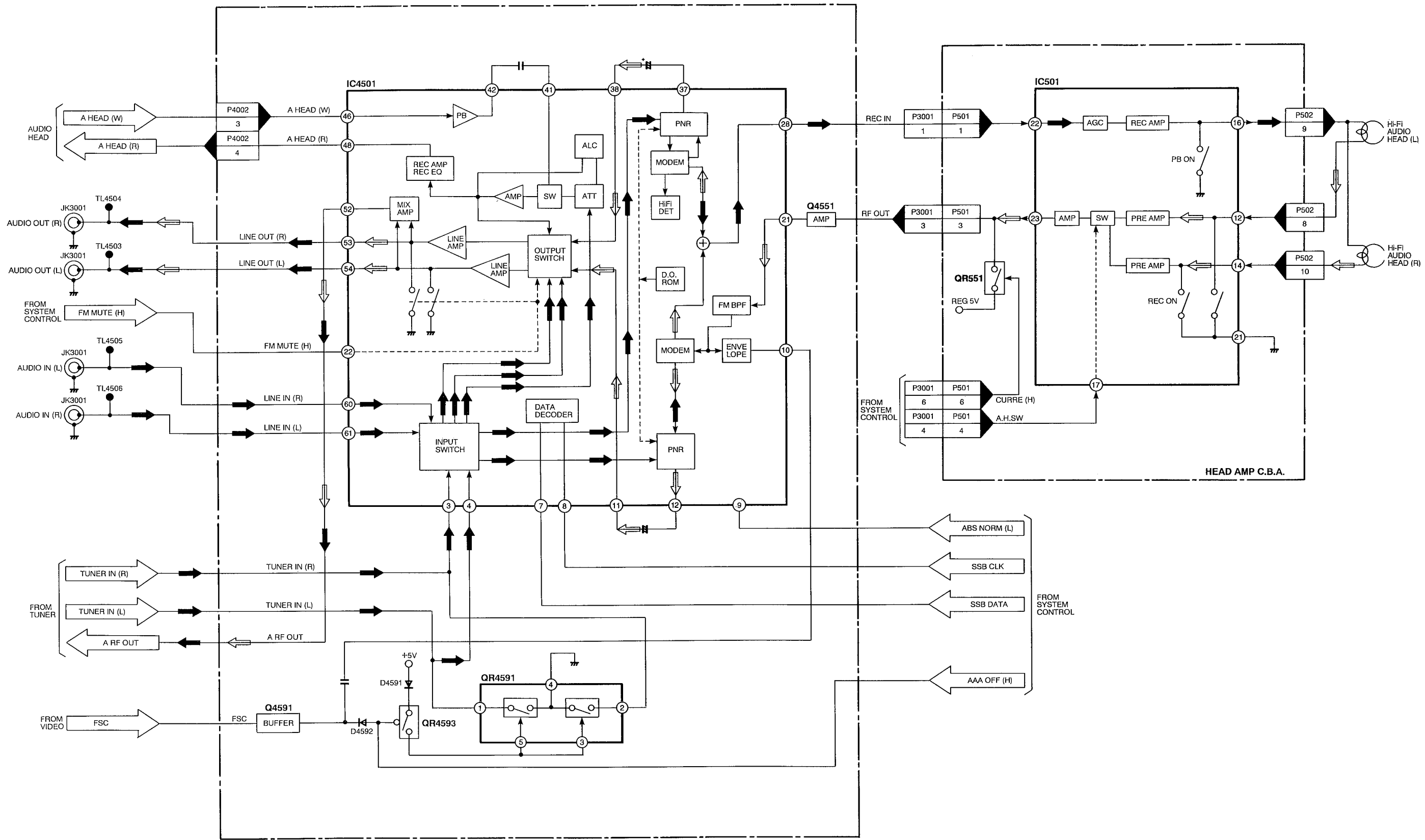
VIDEO MAIN SIGNAL PATH IN REC MODE



3-4. Hi-Fi AUDIO BLOCK DIAGRAM (NV-HD660PM ONLY)

◀ MAIN SIGNAL PATH IN PLAYBACK MODE

▶ MAIN SIGNAL PATH IN REC MODE



A vertical scale with five horizontal tick marks. The labels A, B, C, D, E, and F are positioned to the left of the scale, corresponding to the tick marks from bottom to top.



IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK  HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

THE RED MARK INDICATES THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT. PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.

3-6. POWER C.B.A. (VEP01774B)

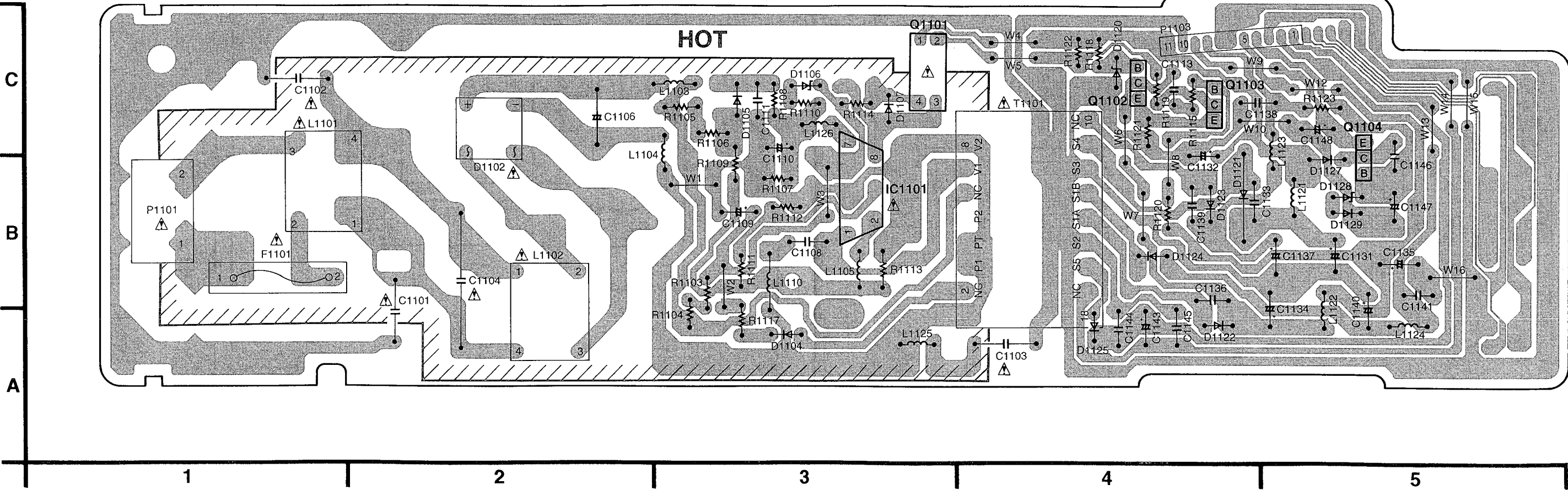
POWER C. B. A.	
Transistor	
Q1101	C-3
Q1102	C-4
Q1103	C-4
Q1104	B-5
Integrated Circuit	
IC1101	B-3
Connector	
P1101	B-1
P1103	C-4

ADDRESS INFORMATION

CAUTION

THE RED MARK INDICATES THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT. PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.

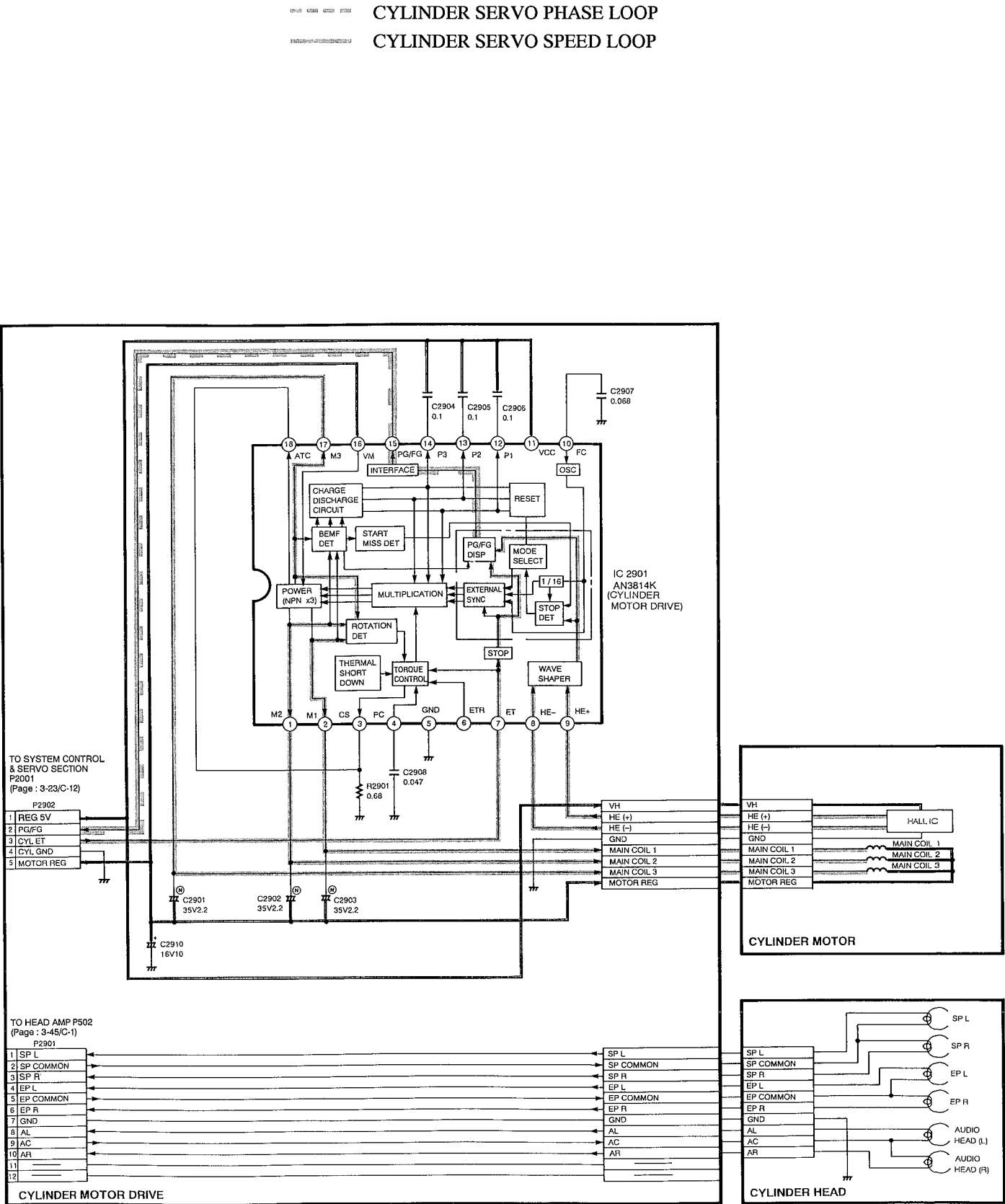
IMPORTANT SAFETY NOTICE :
COMPONENTS IDENTIFIED WITH THE MARK  HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.



SYSTEM CONTROL & SERVO DC VOLTAGE

REF. NO.	IC1501										IC1502																									
MODE	1	2	3	4							1	2	3	4																						
STOP	2.3	1.1	0	0							1.1	0	4.9	0																						
PLAY	—	—	4.9	0							—	—	—	—																						
REC	—	—	4.9	0							—	—	—	—																						
F.F	2.3	1.1	4.9	0							1.1	0	4.9	0																						
REW	2.3	1.1	4.9	0							1.1	0	4.9	0																						
REF. NO.	IC2501																																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20																
STOP	1.8	4.3	1.8	13.4	1.1	13.9	0	0	1.2	2.7	2.3	0	0	4.8	1.4	0	2.1	2.1	2.1	2.1																
PLAY	2.9	—	2.8	12.6	2.1	—	—	0.5	0.5	—	—	0.3	—	—	—	—	—	—	—	—																
REC	2.9	—	2.8	12.6	2.1	—	—	0.5	0.5	—	—	0.3	—	—	—	—	—	—	—	—																
F.F	7.3	13.6	7.3	6.0	11.7	13.7	0	0.5	0.5	2.7	2.0	0.3	0	4.8	1.4	0	2.1	2.1	2.1	2.1																
REW	7.3	13.6	7.3	6.9	11.7	13.7	0	0.5	0.5	2.7	2.0	0.3	0	4.8	1.4	0	2.1	2.1	2.1	2.1																
REF. NO.	IC2501																																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32																								
STOP	2.1	2.1	0	6.3	6.2	6.3	5.8	12.2	2.3	1.8	0	0																								
PLAY	—	—	—	—	—	—	—	—	0	3.1	—	—																								
REC	—	—	—	—	—	—	—	—	0	3.1	—	—																								
F.F	2.1	2.1	0	6.3	6.2	6.3	5.9	12.3	0	8.1	0.1	0																								
REW	2.1	2.1	0	6.3	6.2	6.3	5.9	12.3	4.8	7.8	0	0																								
REF. NO.	IC2502																																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18																		
STOP	13.6	13.6	0	0.5	0	2.3	2.3	1.1	1.1	2.5	4.8	3.5	3.5	3.5	1.1	13.9	13.6	0																		
PLAY	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																		
REC	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																		
F.F	13.4	13.4	0	0.5	0	2.3	2.3	1.1	1.1	2.5	4.8	3.5	3.5	3.5	0.8	13.7	13.4	0																		
REW	13.4	13.4	0	0.5	0	2.3	2.3	1.1	1.1	2.5	4.8	3.5	3.5	3.5	0.8	13.7	13.4	0																		
REF. NO.	IC6001																																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20																
STOP	0	0	0	4.8	4.8	4.8	4.6	4.7	1.9	4.8	0	2.3	0	0	0	0	1.6	4.8	0	0																
PLAY	—	—	—	—	—	—	—	—	3.9	0	4.7	0	—	—	4.8	—	0	—	4.8	—																
REC	—	—	—	—	—	—	—	—	2.4	0	4.7	0	—	—	4.8	—	4.8	—	0	4.7																
F.F	0	0	0	4.8	4.8	4.8	4.6	4.7	2.2	0	4.7	0	0	0	0	0	3.7	4.8	0	0																
REW	0	0	0	4.8	4.8	4.8	4.6	4.7	2.7	0	4.7	4.7	0	0	0	0	3.7	4.8	0	0																
REF. NO.	IC6001																																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																
STOP	0	0	0	0	4.8	4.8	0	0	4.8	0	4.8	0	0	0	0	4.8	4.8	2.2	2.2	0																
PLAY	—	—	—	—	4.8	3.5	—	—	—	—	4.8	—	—	—	—	—	—	—	—	—																
REC	—	—	—	—	0	4.7	0	0	0	4.7	4.7	4.8	0	0	0	0	4.8	4.8	—	—																
F.F	0	0	0	0	4.7	4.8	0	0	0	4.7	4.7	4.8	4.7	0	0	0	4.8	4.8	—	—																
REW	0	0	0	0	4.8	4.8	0	0	0	4.7	4.8	4.8	4.7	0	0	0	4.8	4.8	—	—																
REF. NO.	IC6001																																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60																
STOP	0	0	4.7	0.1	0	0	0	0	4.8	4.8	0	4.7	4.8	0	0	0	0	0	0	0																
PLAY	—	—	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—	—	—	—																
REC	0	0	4.7	4.8	0	0	0	0	4.8	4.8	0	4.7	4.8	0	0	0	0	0	0	0																
F.F	0	0	4.7	0.2	0	0	0	0	4.8	4.8	0	0	0	0	0	0	0	0	0	0																
REW	0	0	4.7	0.2	0	0	0	0	4.8	4.8	0	0	0	0	0	0	0	0	0	0																
REF. NO.	IC6001																																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80																
STOP	0	0	4.8	4.8	4.7	0	4.8	4.5	4.5	4.1	0	0	0	0	0	0	2.3	2.3	5.0	0																
PLAY	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.9																
REC	0	0	4.8	4.8	4.7	0	4.8	4.5	4.5	4.1	0	0	0	0	0	0	2.3	2.3	5.0	4.9																
F.F	0	0	4.7	4.7	4.7	0	4.7	4.5	4.5	4.1	0	0	0	0	0	0	1.8	2.2	5.0	2.3																
REW	0	0	4.7	4.7	4.7	0	4.7	4.5	4.5	4.1	0	0	0	0	0	0	2.3	2.2	5.0	3.9																
REF. NO.	IC6001																																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																
STOP	0	4.8	4.8	2.3	2.3	0.8	4.8	0	2.3	2.3	0	0	0	2.3	2.3	0	2.3	4.8	4.8	4.8																
PLAY	—	—	—	—	—	—	0	0	—	—	—	—	—	—	—	—	—	—	—	—																
REC	0	4.8	4.8	2.3	—	1.1	0	0	2.3	2.3	3.6	4.5	0	2.3	2.3	0	2.3	4.8	4.8	4.8																
F.F	0	4.7	4.7	2.3	2.3	1.1	0	0	2.3	2.3	0	0	0	2.3	2.3	0	2.3	4.8	4.8	4.8																
REW	0	4.7	4.8	2.3	2.3	0.8	0	0	2.3	2.3	0	0	0	2.3	2.3	0	2.3	4.8	4.8	4.8																
REF. NO.	IC6002										IC6003																									
MODE	1	2	3	4	5	6	7	8	9	10	1	2	3																							
STOP	0.4	13.9	13.9	0	0	0	6.7	8.7	0.3	0	4.8	0	4.7																							
PLAY	0.1	—	—	—	—	—	—	—	0.1	—	—	—	—																							
REC	0.1	—	—	—	—	—	—	—	0.1	—	—	—	—																							
F.F	0.4	13.9	13.9	0	0	0	13.7	8.7	0.3	0	4.8	0	4.7																							
REW	0.4	13.9	13.9	0	0	0	13.7	8.7	0.3	0	4.8	0	4.7																							
REF. NO.	Q1501				Q1502				Q6001				Q6004				QR2001				QR6001															
MODE	E	C	B		E	C	B		E	C	B		E	C	B		1	2	3	4	5															
STOP	0	4.7			0	4.7			5.0	0.1	4.8	4.8	-0.5	4.8	0	0	4.7	0	0	4.7	0	4.8														
PLAY	—	—			—	—			—	—	—	—	4.7	3.9	—	—	—	—	—	—	—															
REC	—	—			—	—			—	4.8	4.1	—	4.7	3.9	—	—	—	—	—	—	—															
F.F	—	4.5			—	4.5			5.0	0.2	4.8	4.8	4.7	3.9	0	0	0	13.7	13.7	0	0	0														
REW	0	4.5			0	4.5			5.0	0.2	4.8	4.8	4.7	3.9	0	0	0	13.7	13.7	0	0	0														

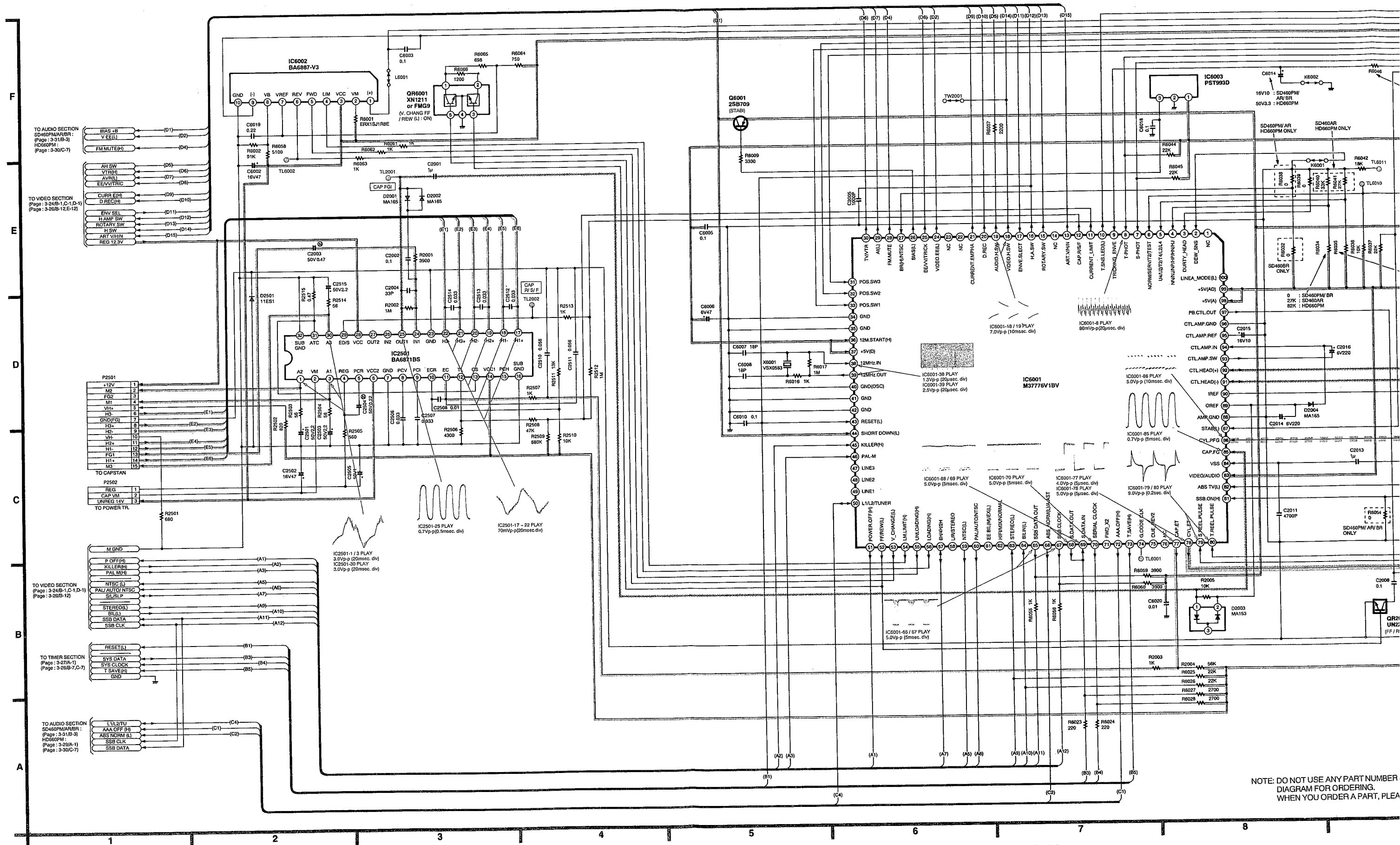
■ CYLINDER DRIVE SCHEMATIC DIAGRAM (NV-HD660PM ONLY)



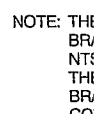
3-7. SYSTEM CONTROL & SERVO SECTION IN MAIN SCHEMATIC DIAGRAM

CAPSTAN SERVO PHASE LOOP

CYLINDER SERVO PHASE LOOP



VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE

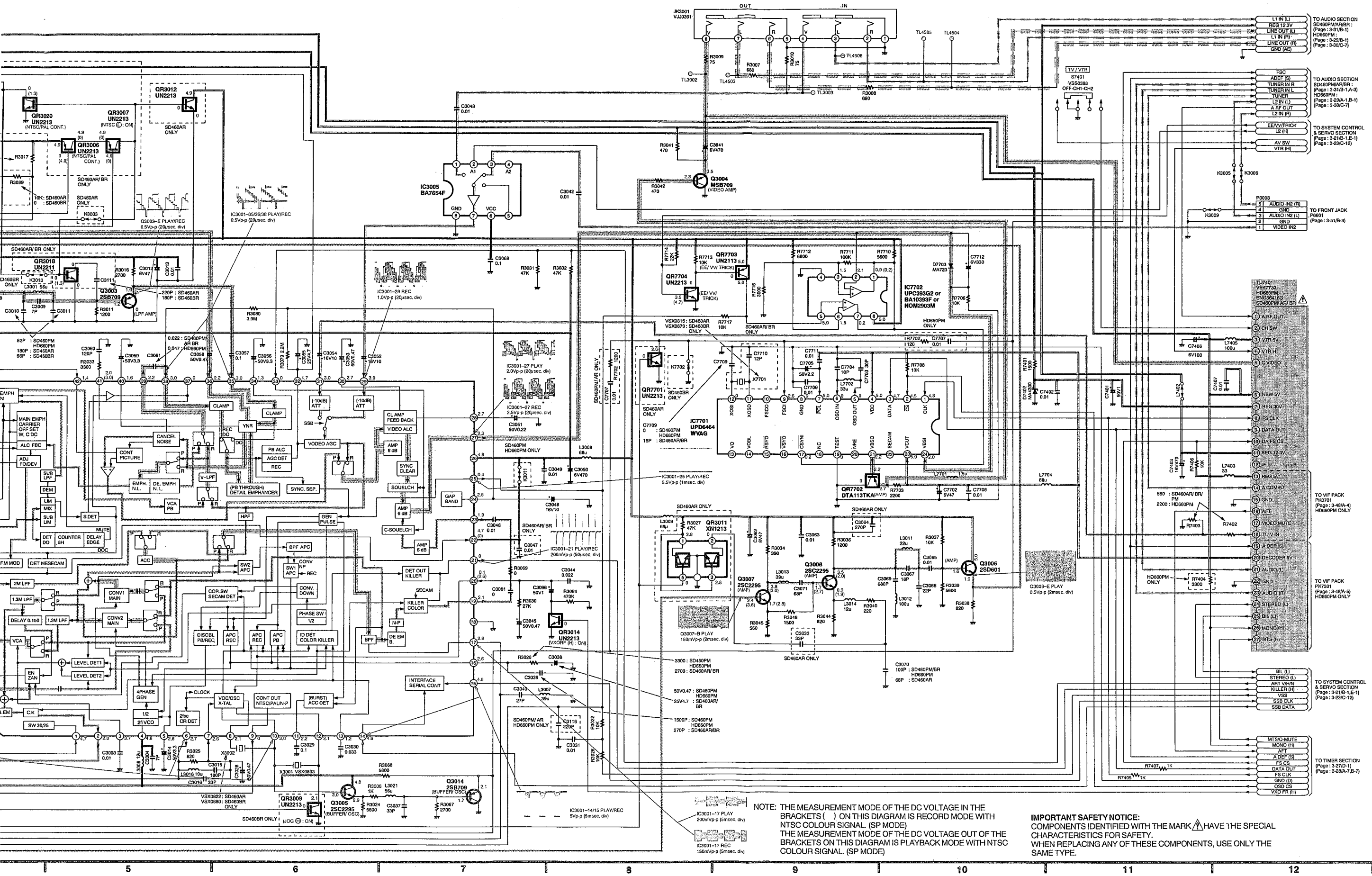


VIDEO MAIN SIGNAL PATH IN REC MODE

VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE

AUDIO MAIN SIGNAL PATH IN REC MODE

AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE



NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS () ON THIS DIAGRAM IS RECORD MODE WITH NTSC COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH NTSC COLOUR SIGNAL. (SP MODE)

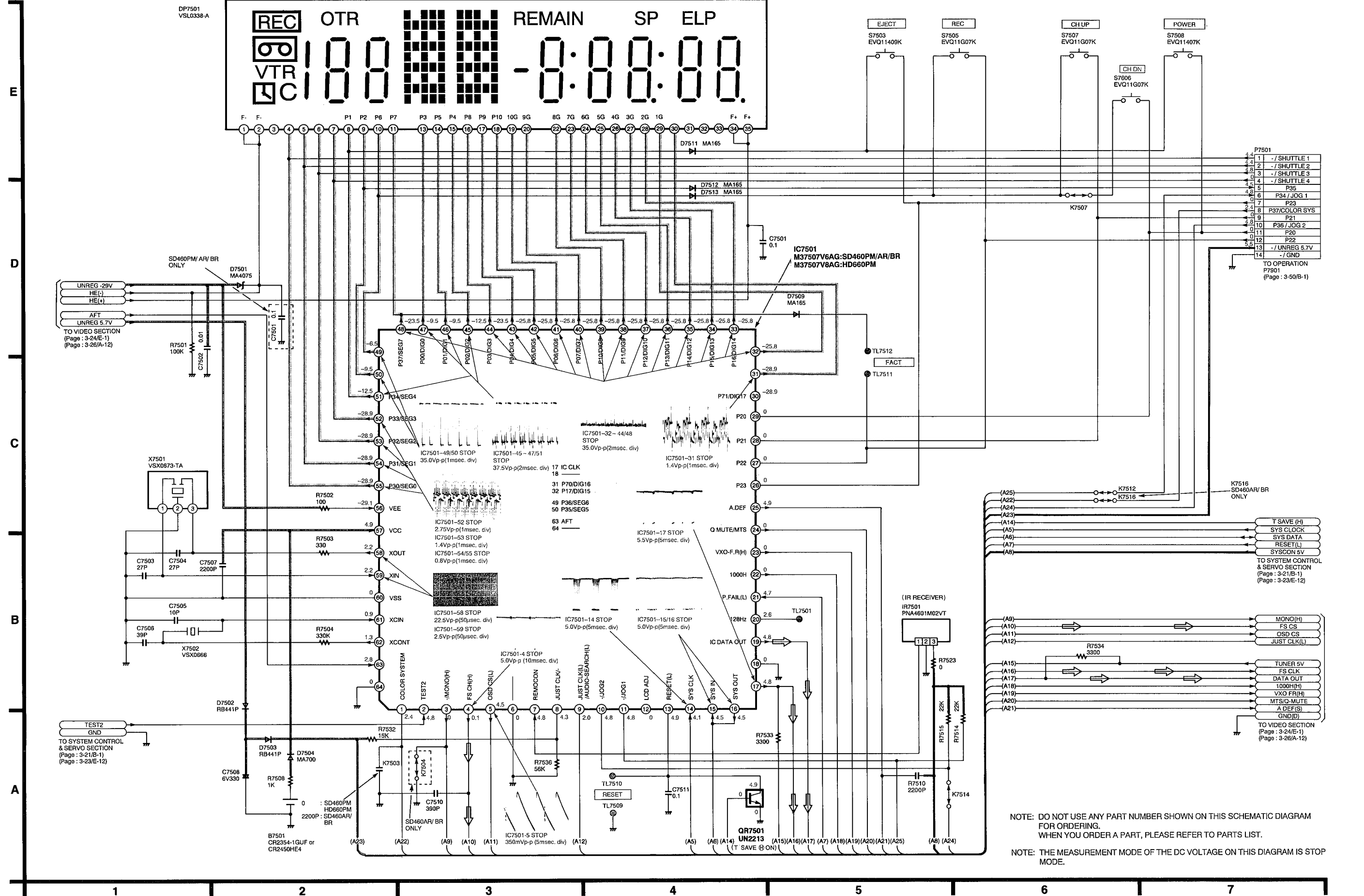
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK  HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

3-9. TIMER SECTION IN MAIN SCHEMATIC DIAGRAM

GRID CONTROL SIGNAL PATH

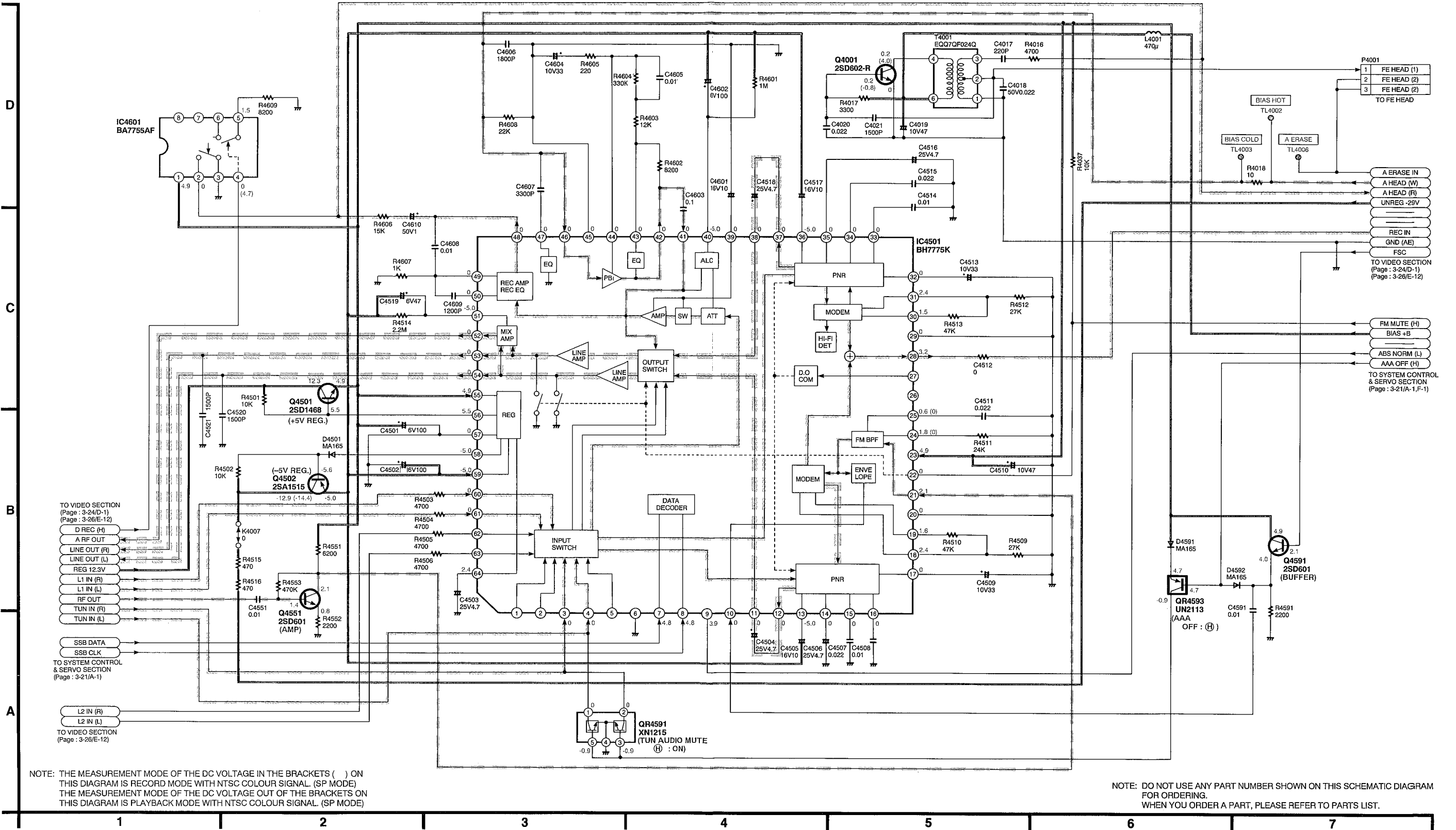
SEGMENT CONTROL SIGNAL PATH

TUNER CONTROL SIGNAL PATH



3-10. AUDIO SECTION IN MAIN SCHEMATIC DIAGRAM (NV-HD660PM)

AUDIO MAIN SIGNAL PATH IN REC MODE
AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE



NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS () ON THIS DIAGRAM IS RECORD MODE WITH NTSC COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH NTSC COLOUR SIGNAL. (SP MODE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.
WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

(NV-SD460PM/AR/BR)

AUDIO MAIN SIGNAL PATH IN REC MODE

AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

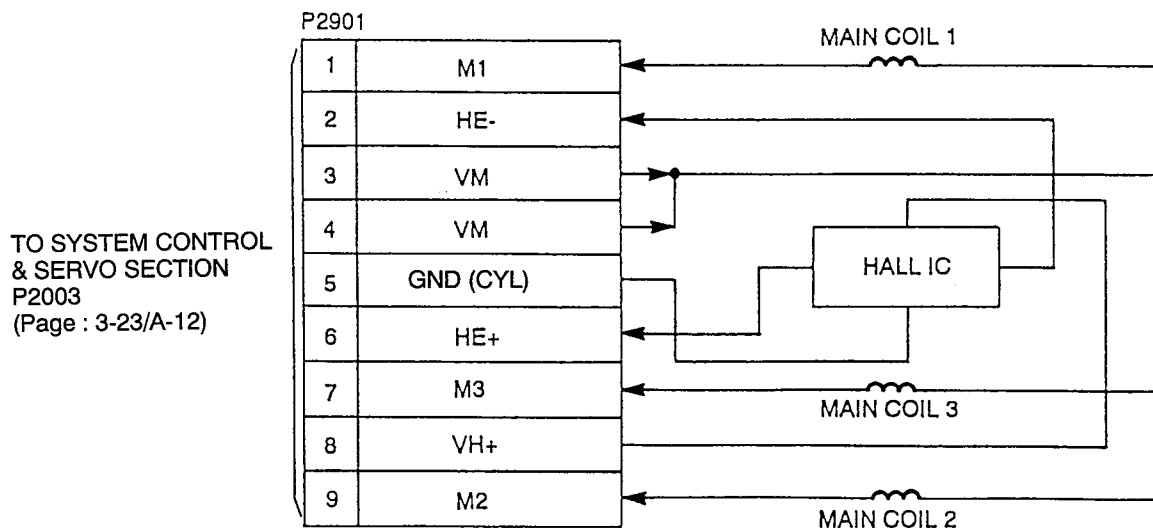


3

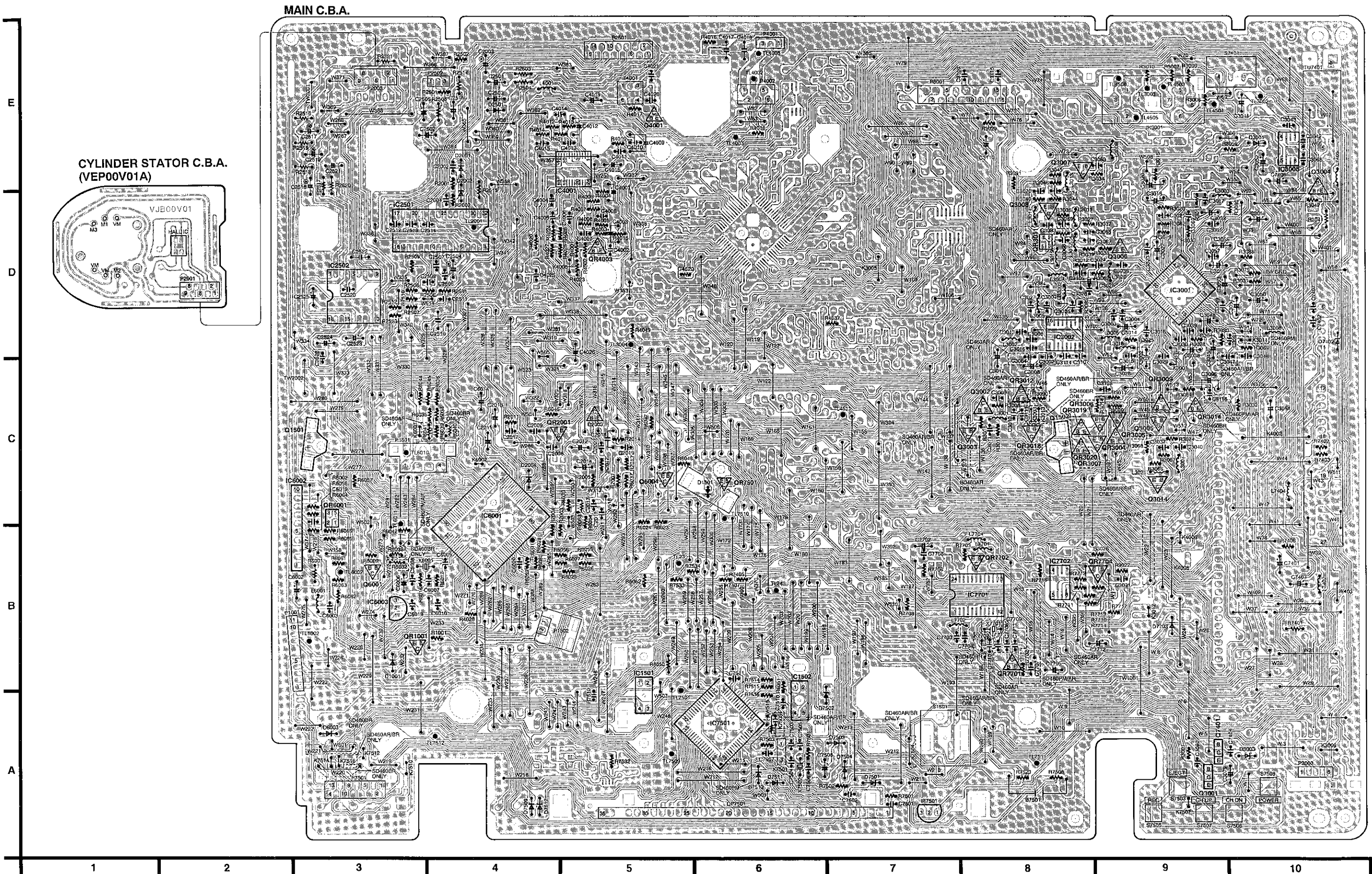
MAIN C. B. A.							
Transistor		QR4003	D-5	Test Land		P2501	E-5
		QR6001	C-3			P2502	E-4
Q1501	C-3	QR7501	C-6	TL23	B-5	P3001	E-7
Q1502	C-8	QR7701	B-8	TL24	B-6	P3003	A-10
Q3001	A-9	QR7702	B-8	TL1002	B-3	P4001	E-6
Q3002	C-8	QR7704	B-9	TL2001	D-4	P4002	E-6
Q3003	C-8	Integrated Circuit		TL3002	E-10	P7501	A-3
Q3004	E-10			TL3003	E-9		
Q3005	C-9	IC1501	B-5	TL3004	D-5		
Q3006	D-9	IC1502	B-6	TL4002	E-6		
Q3007	E-8	IC2501	D-3	TL4003	E-6		
Q3008	D-8	IC2502	D-3	TL4006	E-6		
Q3014	C-9	IC3001	D-9	TL4503	E-9		
Q4001	E-5	IC3002	D-8	TL4504	E-9		
Q6001	B-3	IC3005	E-10	TL4505	E-9		
Q6004	C-5	IC4001	E-4	TL4506	E-9		
Q7401	A-9	IC6001	C-4	TL4511	C-7		
Transistor & Resistor		IC6002	C-3	TL6001	B-4		
		IC6003	B-3	TL6002	B-3		
QR1001	B-3	IC7501	A-6	TL6010	C-3		
QR2001	C-4	IC7701	B-8	TL6011	C-3		
QR3004	C-9	IC7702	B-8	TL7501	B-5		
QR3005	C-9	Test Wire		TL7509	A-5		
QR3006	C-9			TL7510	C-6		
QR3007	C-9	TW1001	B-9	TL7511	A-8		
QR3009	C-9	TW2001	E-3	TL7512	A-4		
QR3011	D-8	TW2002	C-3	Connector			
QR3012	C-8	TW GND	D-10				
QR3014	C-9			P1001	B-3		
QR3018	C-8			P1501	C-3		
QR3019	C-8			P1502	B-5		
QR3020	C-8			P2003	E-3		

ADDRESS INFORMATION

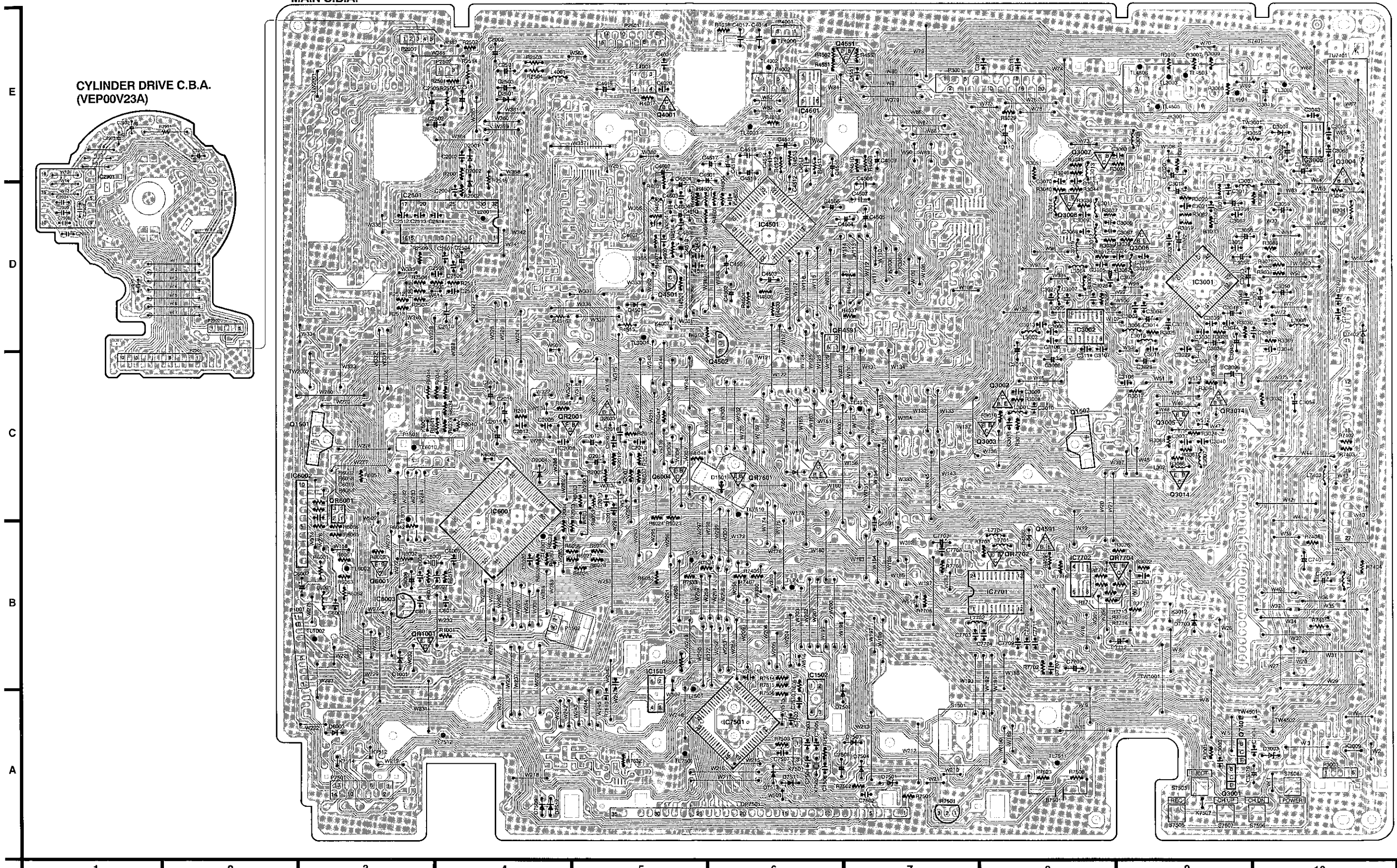
■ CYLINDER STATOR SCHEMATIC DIAGRAM (NV-SD460PM/AR/BR ONLY)



3-12. MAIN C.B.A. (VEP06B35P : NV-SD460PM) (VEP06B35R : NV-SD460AR) (VEP06B35Q : NV-SD460BR)



3-13. MAIN C.B.A. (VEP06B35L : NV-HD660PM)



MAIN C. B. A.					
Transistor		Integrated Circuit		TL3004	D-5
Q1501	C-3	IC1501	B-5	TL4002	E-6
Q1502	C-8	IC1502	B-6	TL4003	E-6
Q3001	A-9	IC2501	D-3	TL4006	E-6
Q3002	C-8	IC3001	D-9	TL4503	E-9
Q3003	C-8	IC3002	D-8	TL4504	E-9
Q3004	E-10	IC3005	E-10	TL4505	E-9
Q3005	C-9	IC4501	D-6	TL4506	E-9
Q3006	D-9	IC4601	E-6	TL4511	C-7
Q3007	E-8	IC6001	C-4	TL6001	B-4
Q3008	D-8	IC6002	C-3	TL6002	B-3
Q3014	C-9	IC6003	B-3	TL6010	C-3
Q4001	E-5	IC7501	A-6	TL6011	C-3
Q4501	D-5	IC7701	B-8	TL7501	B-5
Q4502	D-6	IC7702	B-8	TL7509	A-5
Q4551	E-6	Test Wire		TL7510	C-6
Q6001	B-3			TL7511	A-8
Q6004	C-5			TL7512	A-4
Q7401	A-9			Connector	
Transistor & Resistor		TW1001	B-9		
OR1001	B-3	TW2001	E-3	P1001	B-3
OR2001	C-4	TW2002	C-3	P1501	C-3
OR3014	C-9	TW4501	A-9	P1502	B-5
OR4591	D-6	TW4502	A-10	P2001	E-3
OR4593	C-6	TW GND	D-10	P2003	E-3
OR6001	C-3	Test Land		P2501	E-5
OR7501	C-6			P2502	E-4
OR7702	B-8	TL23	B-5	P3001	E-7
OR7704	B-9	TL24	B-6	P3003	A-10
		TL1002	B-3	P4001	E-6
		TL2001	D-4	P4002	E-6
		TL3002	E-10	P7501	A-3
		TL3003	E-9		

ADDRESS INFORMATION

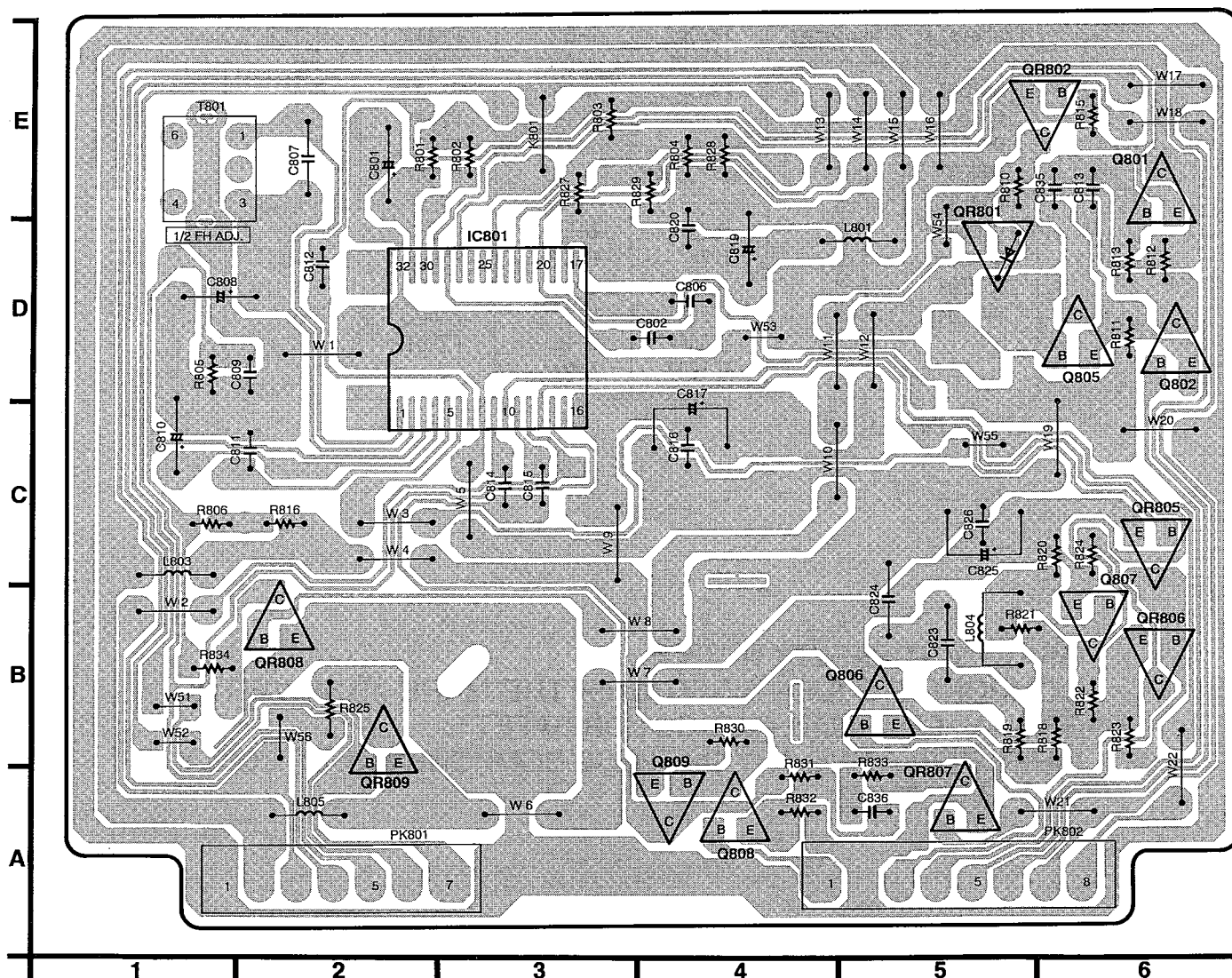
IMPORTANT SAFETY NOTICE :

COMPONENTS IDENTIFIED WITH THE MARK  HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS. USE ONLY THE SAME TYPE.

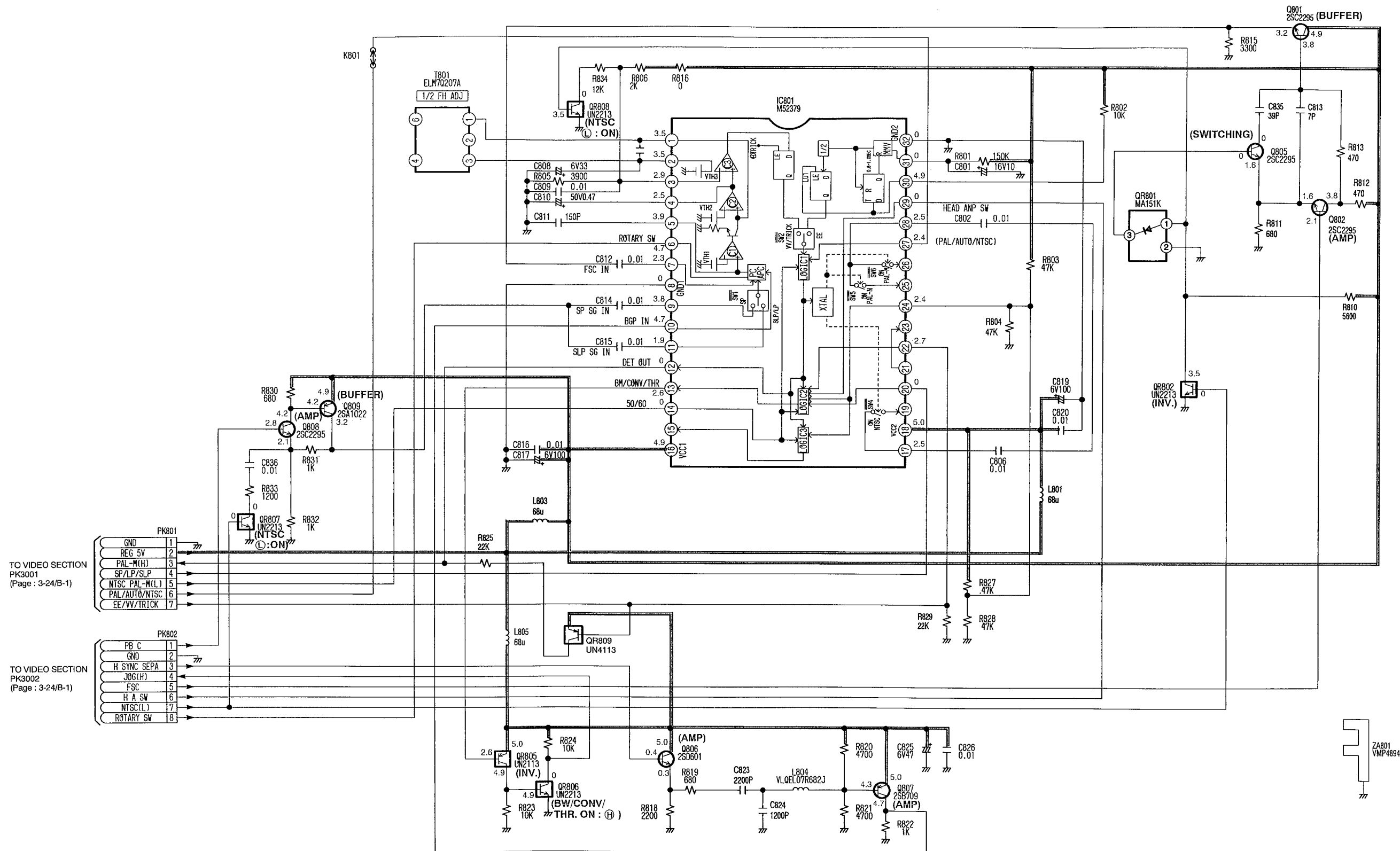
3-14. PAL CONVERTER C.B.A. (VEP03D36A : NV-SD460BR ONLY)

PAL CONVERTER C. B. A.					
Transistor		Transistor & Resistor		Integrated Circuit	
Q801	E-6	QR801	D-5	IC801	D-3
Q802	D-6	QR802	E-6	Connector	
Q805	D-6	QR805	C-6		
Q806	B-5	QR806	B-6		
Q807	B-6	QR807	A-5	PK801	A-2
Q808	A-4	QR808	B-2		PK802
Q809	A-4	QR809	B-2		

ADDRESS INFORMATION



3-15. PAL CONVERTER SCHEMATIC DIAGRAM (NV-SD460BR ONLY)



NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH NTSC COLOUR SIGNAL. (SP MODE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-16. HEAD AMP SCHEMATIC DIAGRAM (NV-SD460PM/AR/BR)

VIDEO MAIN SIGNAL PATH IN REC MODE

VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE

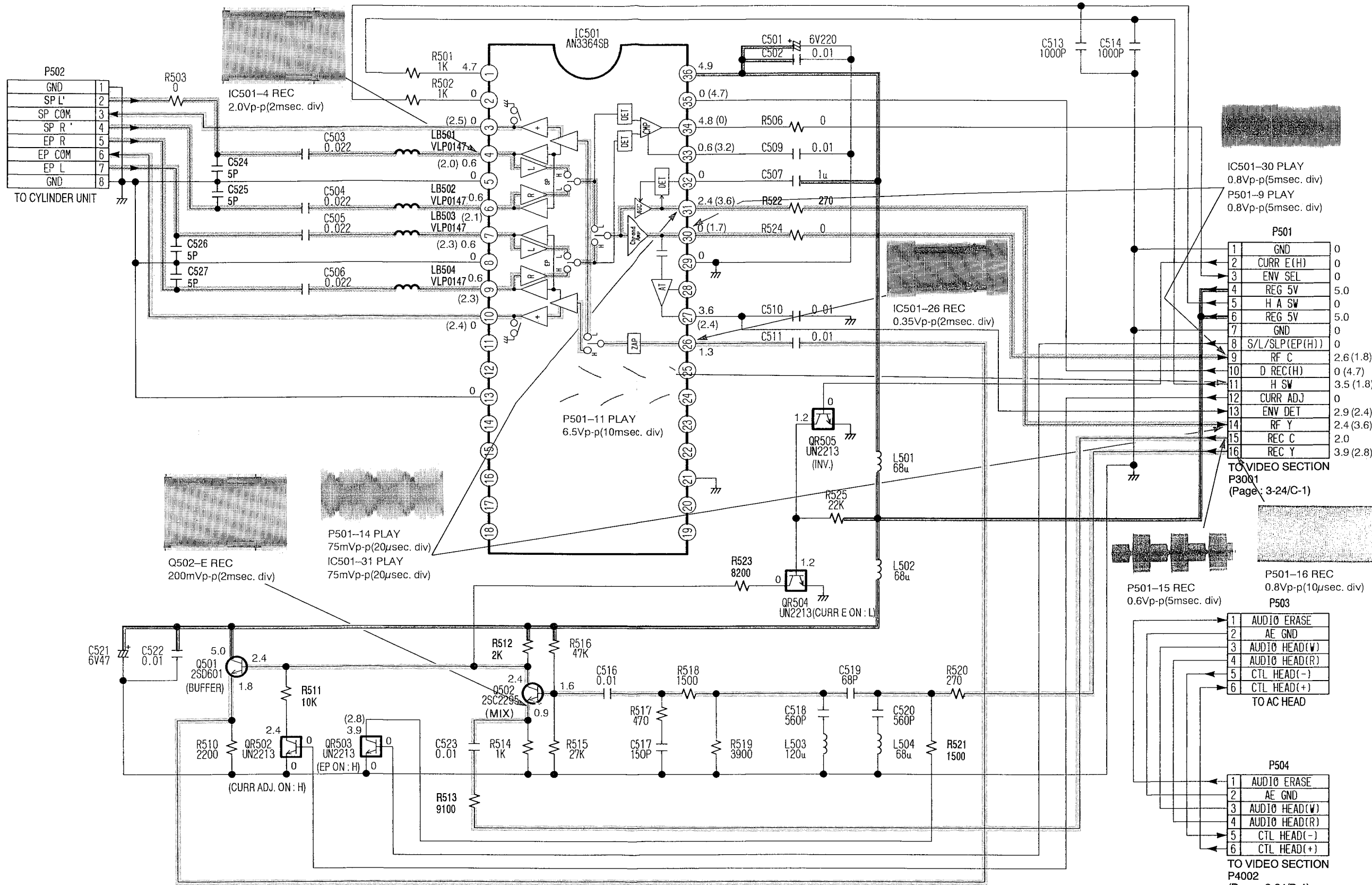
E

D

C

B

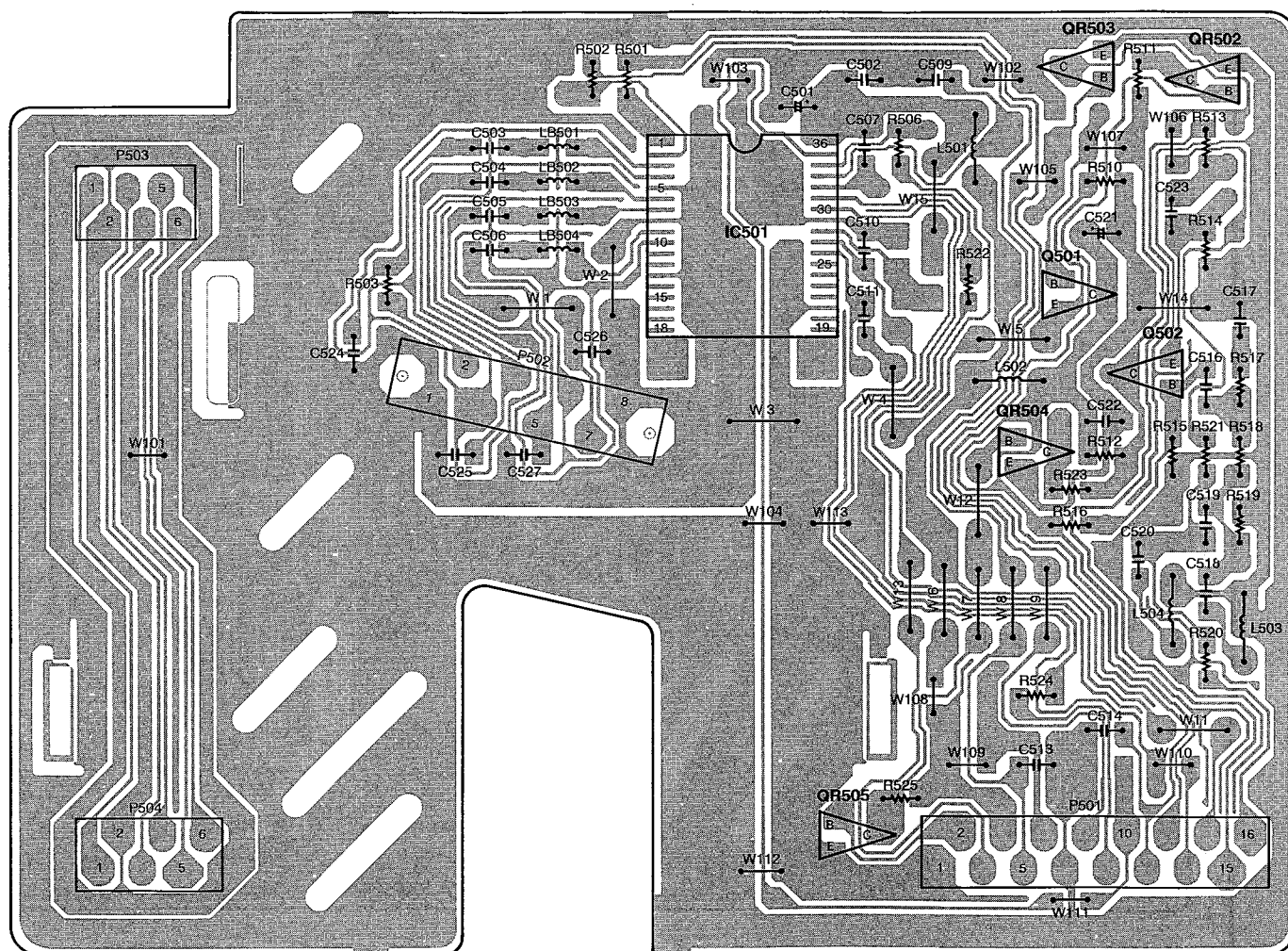
A



NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.
WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS () ON THIS DIAGRAM IS RECORD MODE WITH NTSC COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH NTSC COLOUR SIGNAL. (SP MODE)

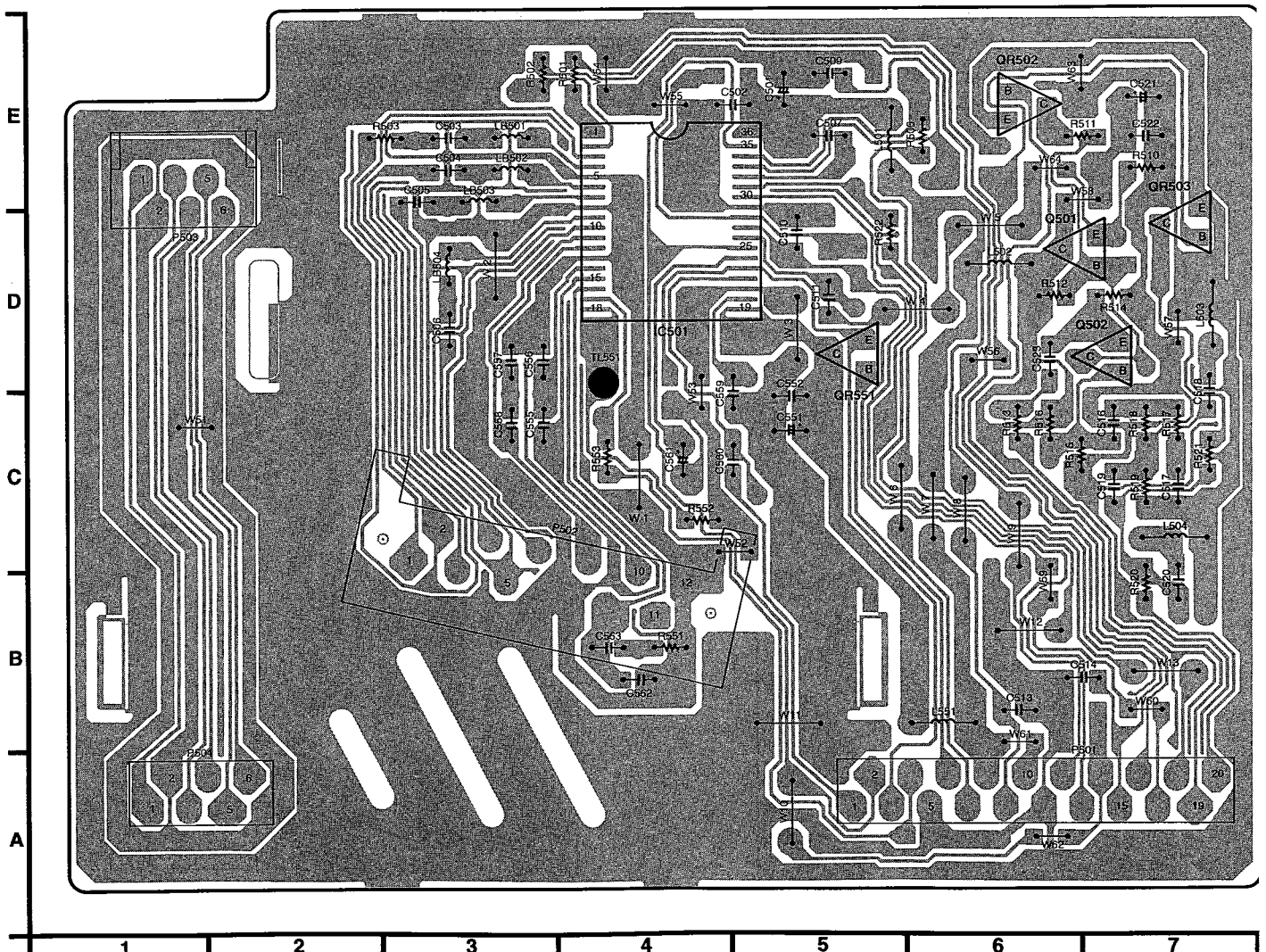
3-17. HEAD AMP C.B.A. (VEP05332A : NV-SD460PM/AR/BR)



3-18. HEAD AMP C.B.A. (VEP05331A : NV-HD660PM)

HEAD AMP C. B. A.			
Transistor		Test Land	
Q501 Q502	D-7 D-7	TL551	D-4
Transistor & Resistor		Connector	
QR502 QR503 QR551	E-6 D-7 D-5	P501 P502 P503 P504	A-6 C-3 E-1 A-1
Integrated Circuit			
IC501	D-4		

ADDRESS INFORMATION



AUDIO MAIN SIGNAL PATH IN REC MODE

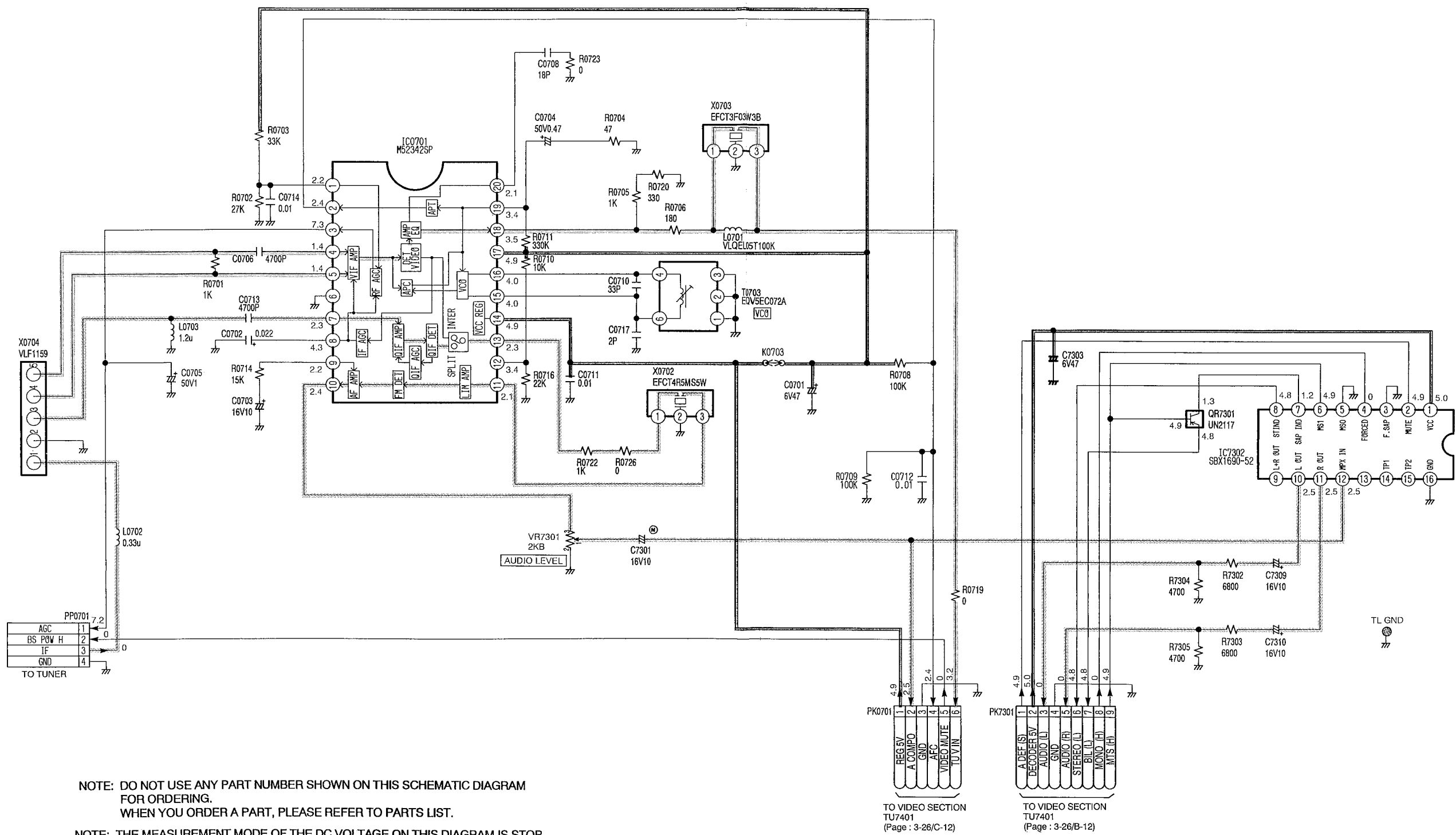


NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.
WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-20. VIF PACK SCHEMATIC DIAGRAM (NV-HD660PM ONLY)

VIDEO MAIN SIGNAL PATH

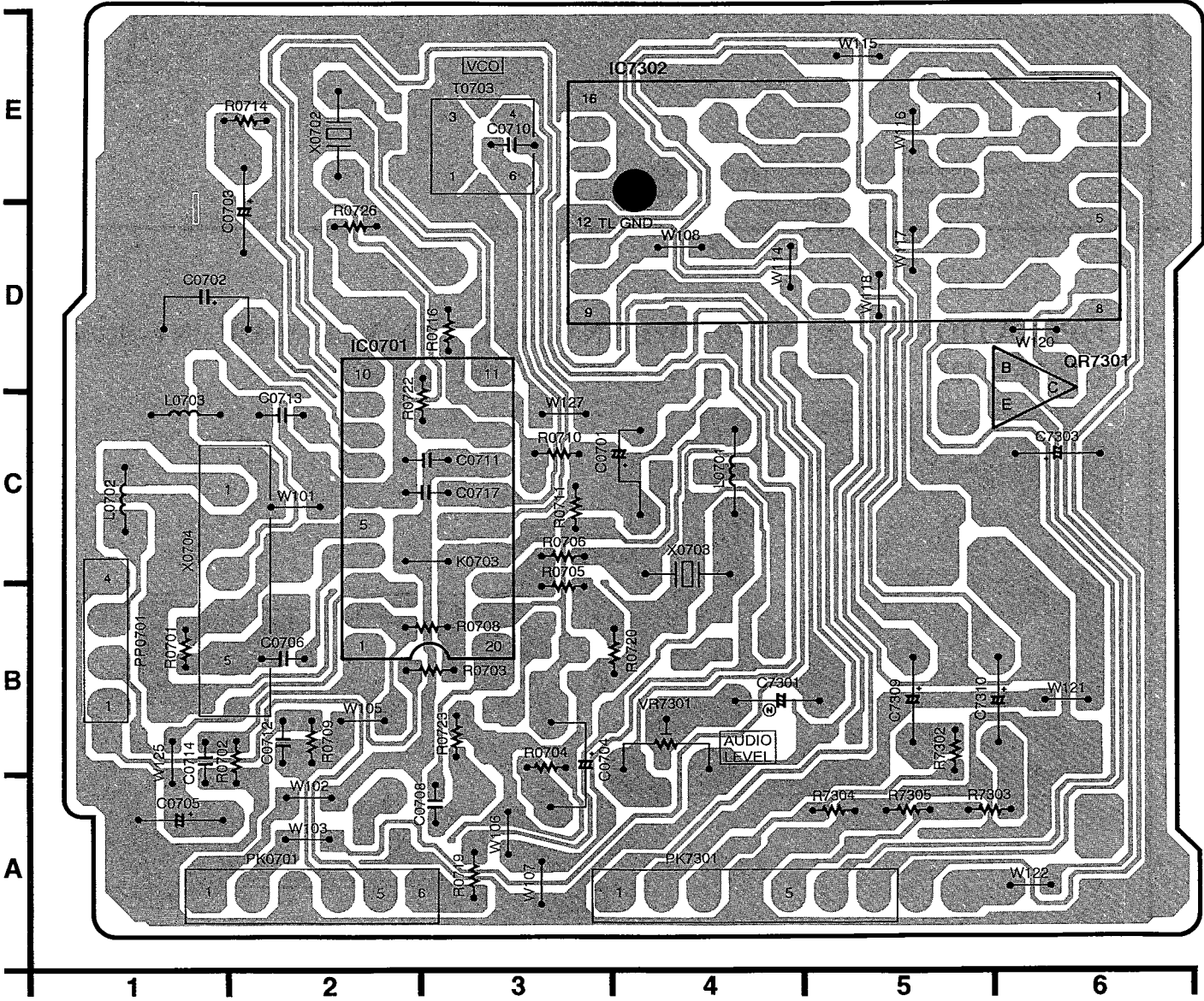
AUDIO MAIN SIGNAL PATH



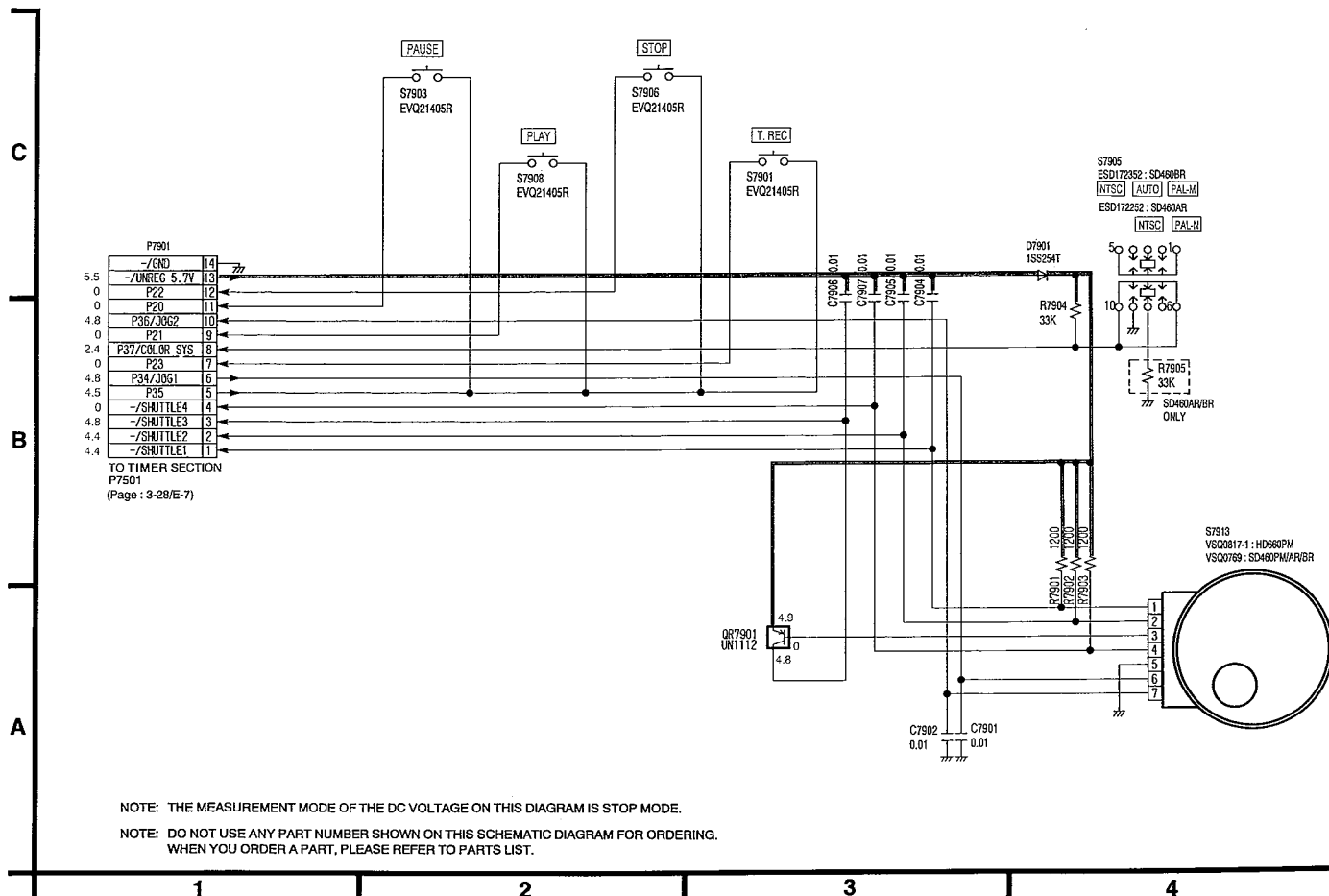
3-21 VIF PACK C B A (VEP07937B : NV-HD660PM ONLY)

VIF PACK C. B. A.					
Transistor & Resistor		Test Land		Connector	
QR7301	D-6	TL GND	E-4	PK0701 PP0701 PK7301	A-2 B-1 A-4
Integrated Circuit		Adjustment			
IC0701 IC7302	C-2 D-5	VR7301	B-4		

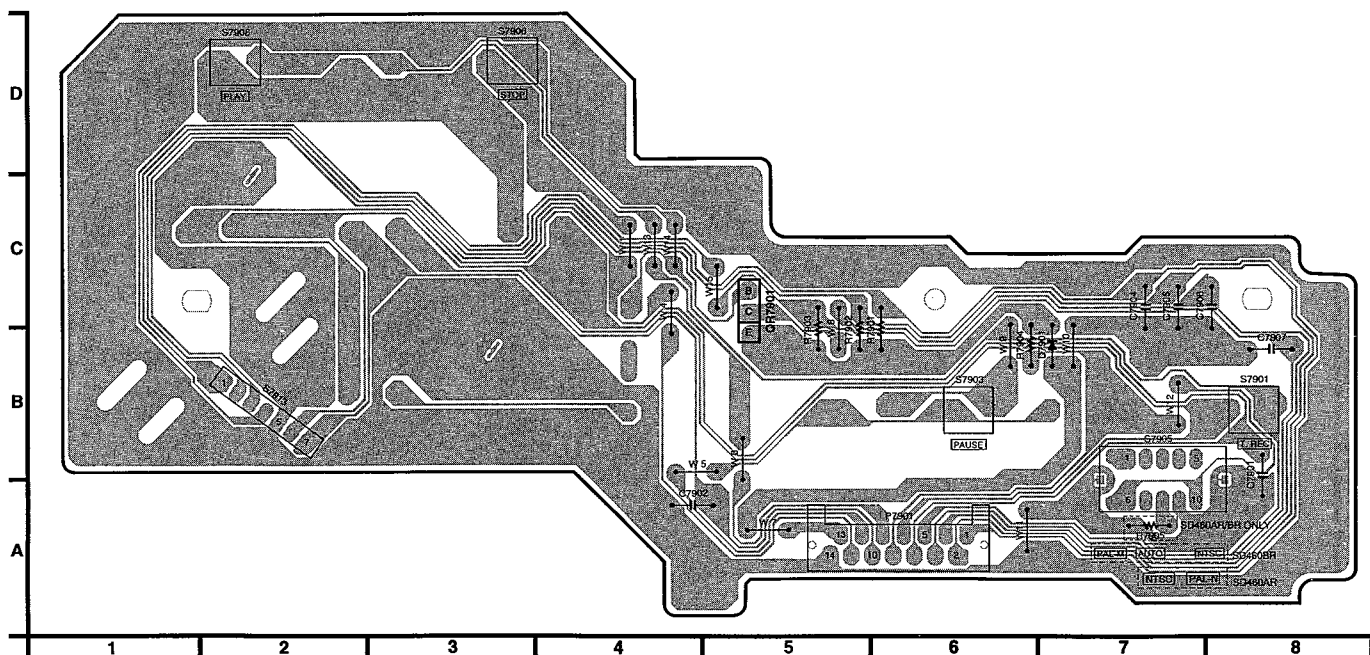
ADDRESS INFORMATION



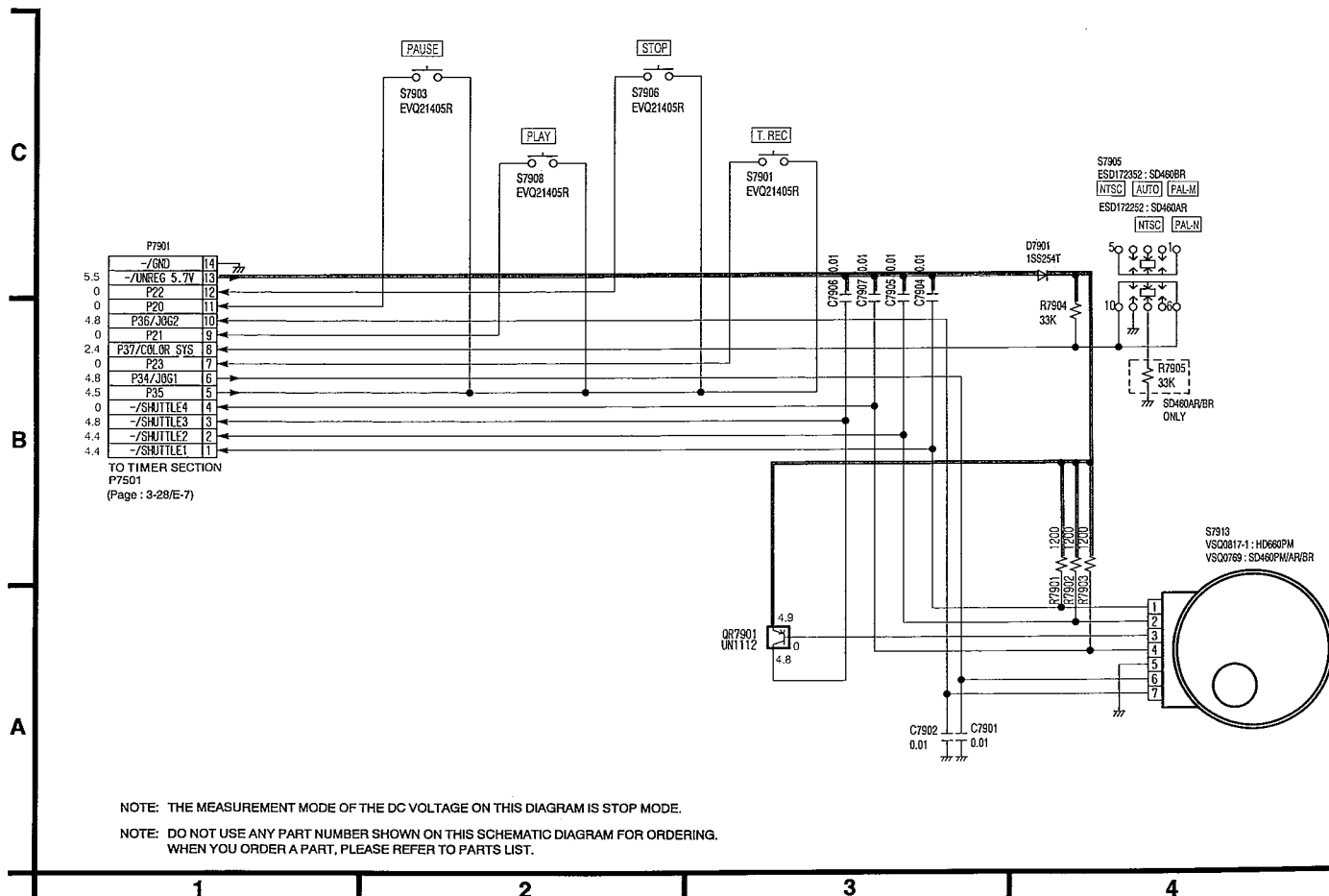
3-22. OPERATION SCHEMATIC DIAGRAM



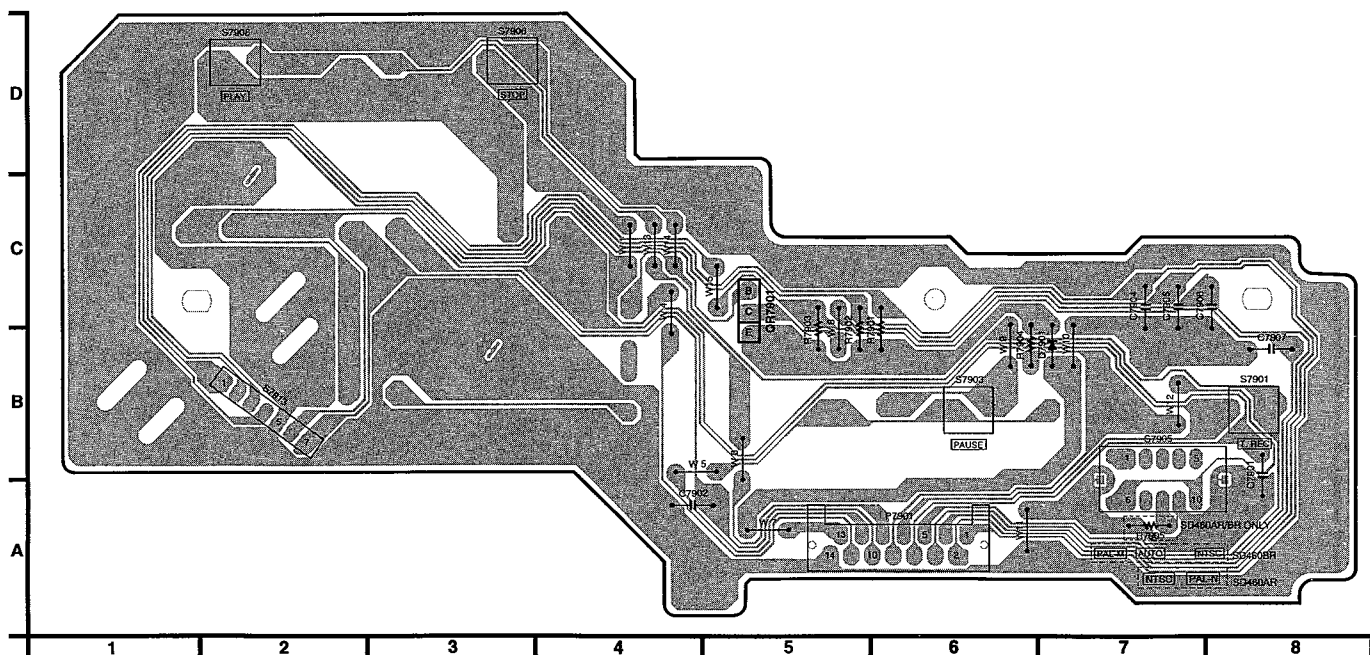
3-23. OPERATION C.B.A. (VEP07942D : NV-SD460PM) (VEP07942F : NV-SD460AR) (VEP07942E : NV-SD460BR) (VEP07942B : NV-HD660PM)



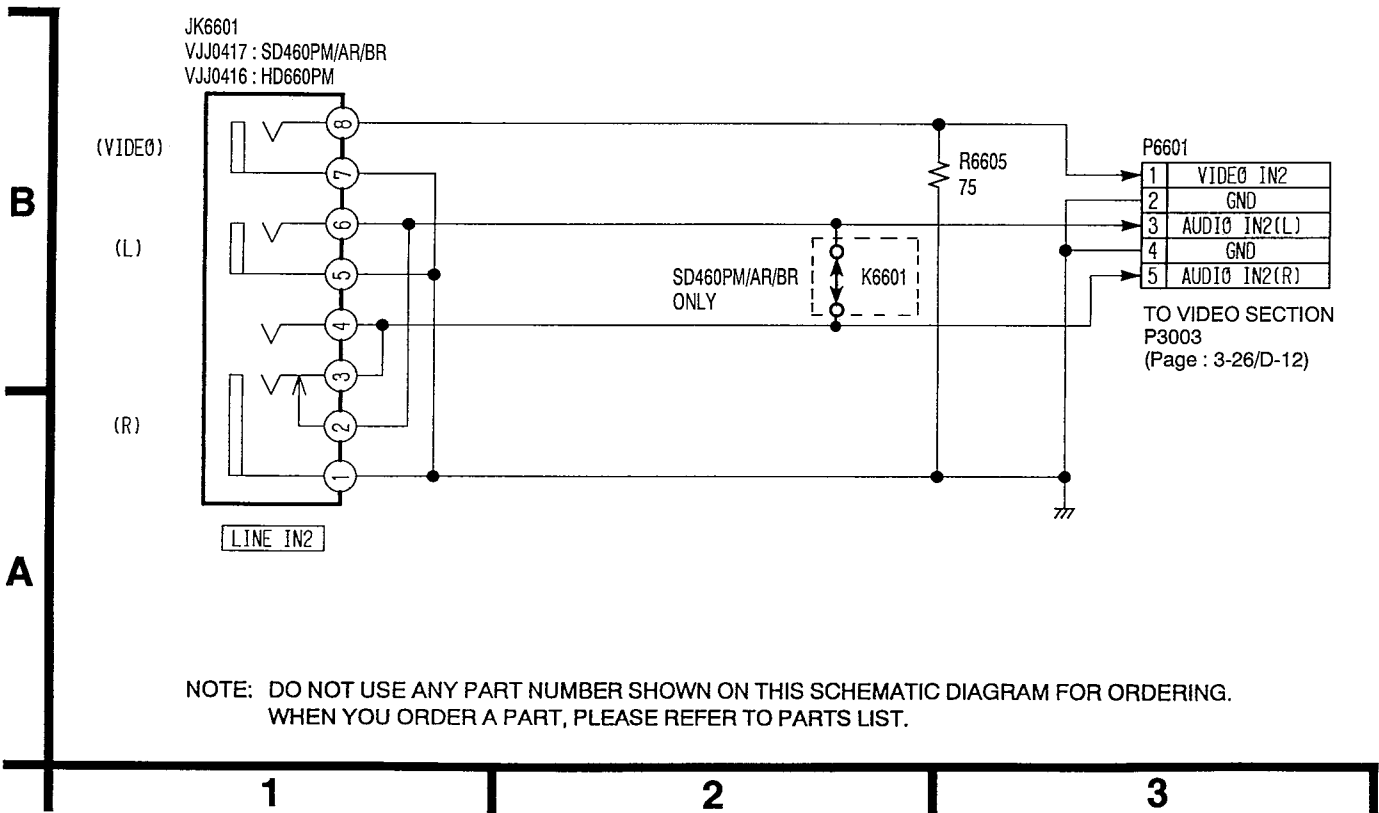
3-22. OPERATION SCHEMATIC DIAGRAM



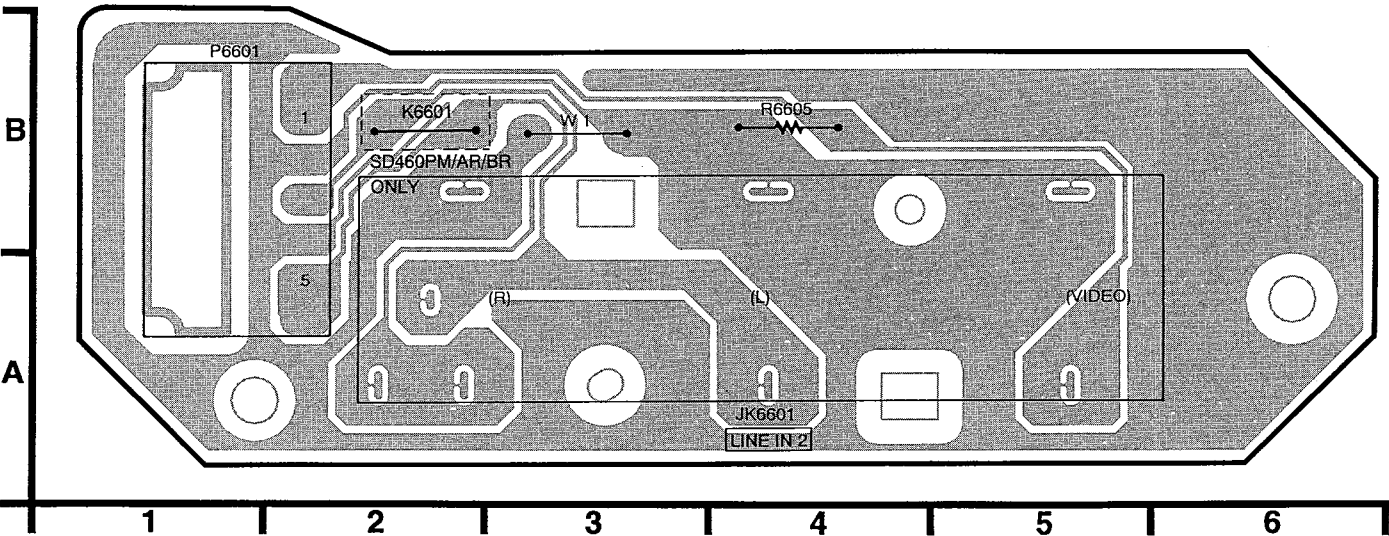
3-23. OPERATION C.B.A. (VEP07942D : NV-SD460PM) (VEP07942F : NV-SD460AR) (VEP07942E : NV-SD460BR) (VEP07942B : NV-HD660PM)



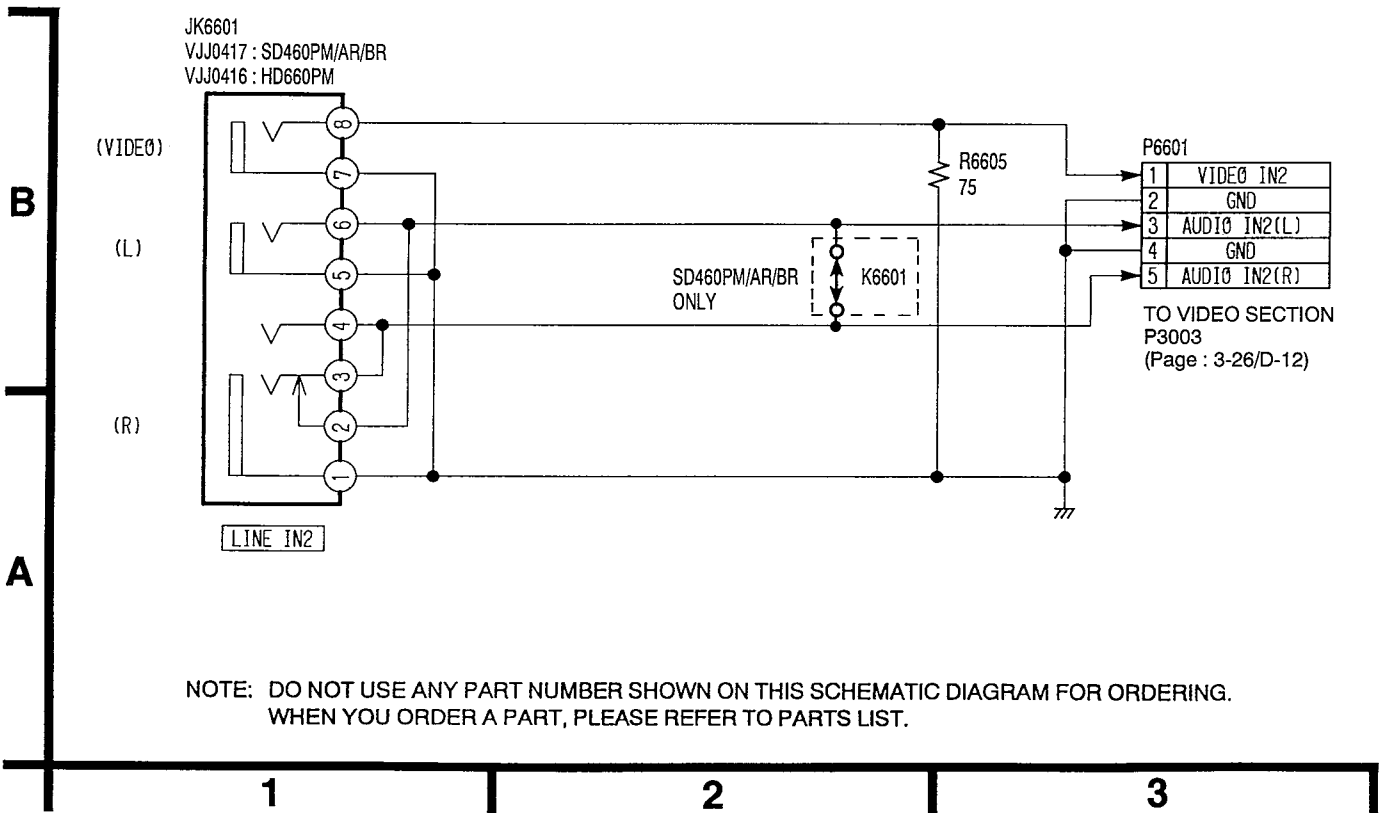
3-24. FRONT JACK SCHEMATIC DIAGRAM



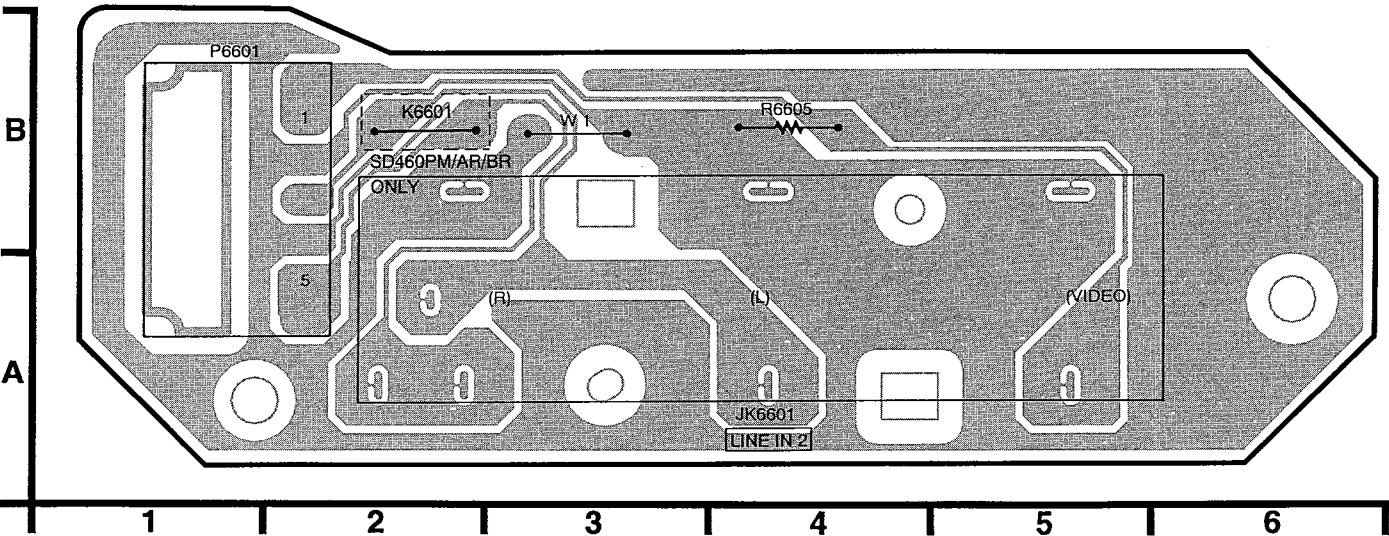
3-25. FRONT JACK C.B.A.(VEP07943B : NV-SD460PM/AR/BR)
(VEP07943A : NV-HD660PM)



3-24. FRONT JACK SCHEMATIC DIAGRAM



3-25. FRONT JACK C.B.A.(VEP07943B : NV-SD460PM/AR/BR)
(VEP07943A : NV-HD660PM)

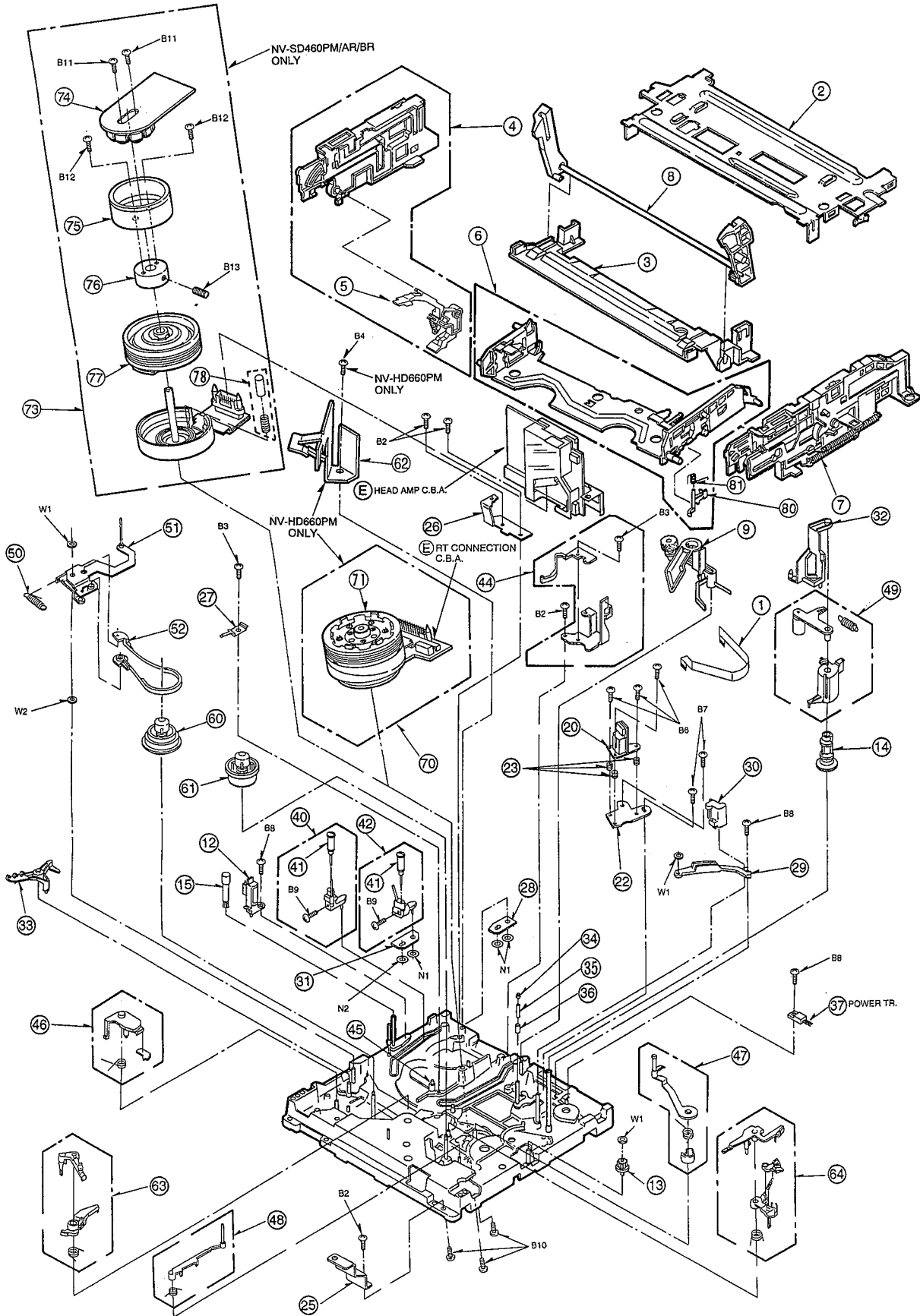


SECTION 4

EXPLODED VIEWS & PARTS LIST

4-1 EXPLODED VIEW MECHANICAL REPLACEMENT PARTS LIST

1 CHASSIS PARTS SECTION (1)



Note: 1.* Be sure to make your orders of replacement parts according to this list.

2. IMPORTANT SAFETY NOTICE

Components identified with the mark < ! > have the special characteristics for safety.

When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1 (1)	VWJ0758	FLAT CARD CABLE (6P)	1	P503-AC HEAD
2 (1)	VMA8644	TOP PLATE	1	
3 (1)	VMA8787	CASSETTE GUIDE	1	
4 (1)	VXA4660	SIDE PLATE (L) UNIT	1	
5 (1)	VXL2250	OPENER LEVER UNIT	1	
6 (1)	VXA4661	CASSETTE HOLDER PLATE UNIT	1	
7 (1)	VXA4806	SIDE PLATE (R) UNIT	1	
8 (1)	VXP1339	MAIN SHAFT UNIT	1	
9 (1)	VXL2440	CLEANER ARM UNIT	1	
12 (1)	VBS0052	FE HEAD	1	
13 (1)	VDG0871	CARRIAGE CONNECTION GEAR	1	
14 (1)	VDG0886	PINCH CAM GEAR	1	
15 (1)	VXP1402	IMPEDANCE ROLLER UNIT	1	
20 (1)	VED0217	A/C HEAD (1) UNIT	1	
22 (1)	VMA8624	A/C HEAD BASE	1	
23 (1)	VMB2515	A/C HEAD SPRING	3	
25 (1)	VMA8761	MOUNT ANGLE	1	
26 (1)	VMA9158	HEAD AMP MOUNT ANGLE (L)	1	
27 (1)	VMG0917	EARTH SPRING	1	
28 (1)	VMA8874	INCLIND BASE HOLDER (S)	1	
29 (1)	VMD2078	P5 STOPPER BASE	1	
30 (1)	VXA4927	P5 POST STOPPER	1	
31 (1)	VMA8873	INCLIND BASE HOLDER (T)	1	
32 (1)	VMD2101	OPENER PIECE	1	
33 (1)	VML2776	TENSION SPRING ARM	1	
34 (1)	VMX1544	P4 UPPER LIMITER	1	
35 (1)	VMX2175	P4 SLEEVE	1	
36 (1)	VMX2176	P4 LOWER LIMITER	1	
37 (1)	2SB1370YD01E	POWER TRANSISTOR	1	
40 (1)	VXA5245KIT	INCLINED BASE (S) UNIT	1	
41 (1)	VXP1415	ROLLER POST	2	
42 (1)	VXA5247KIT	INCLINED BASE (T) UNIT	1	
44 (1)	VXA4974	HEAD AMP MOUNT ANGLE (R) U	1	
45 (1)	VMS5383	CASSETTE POSITION FIXTURE	1	
46 (1)	VXL2310	REVIEW ARM UNIT	1	
47 (1)	VXL2306	P5 ARM UNIT	1	
48 (1)	VXL2394	TAKE UP TENSION REGULATOR	1	
48 (1)		ARM UNIT	1	
49 (1)	VXL2246	PINCH ARM UNIT	1	
50 (1)	VMB2434	TENSION SPRING	1	
51 (1)	VXL2309	TENSION ARM (1) UNIT	1	
52 (1)	VXZ0310	TENSION BAND UNIT	1	
60 (1)	VXR0221	SUPPLY REEL TABLE UNIT	1	
61 (1)	VXR0237	TAKE UP REEL TABLE UNIT	1	
62 (1)	VXS0241	EARTH PLATE UNIT	1	NV-HD660PM
63 (1)	VXZ0312	SUPPLY BRAKE ARM UNIT	1	
64 (1)	VXZ0313	TAKE UP BRAKE ARM UNIT	1	
70 (1)	VEG1370	CYLINDER UNIT	1	NV-HD660PM
71 (1)	VXP1760	UPPER CYLINDER UNIT	1	NV-HD660PM
73 (1)	VEG1221	CYLINDER UNIT	1	NV-SD460PM/BR
73 (1)	VEG1341	CYLINDER UNIT	1	NV-SD460AR
74 (1)	VEK7236	STATOR UNIT	1	NV-SD460PM/AR/BR
75 (1)	VXP1500	ROTOR UNIT	1	NV-SD460PM/AR/BR
76 (1)	VDB1256	CYLINDER RETAINER	1	NV-SD460PM/AR/BR
77 (1)	VEH0824	UPPER CYLINDER UNIT	1	NV-SD460PM/BR
77 (1)	VEH0715	UPPER CYLINDER UNIT	1	NV-SD460AR
78 (1)	VXS0135	EARTH BRUSH UNIT	1	NV-SD460PM/AR/BR
80 (1)	VML2680	RELEASE LEVER	1	
81 (1)	VMB2013	RELEASE SPRING	1	
B2 (1)	XTV26+6F	SCREW	4	
B3 (1)	XTV26+4F	SCREW	2	
B4 (1)	XTN3+8FFZ	SCREW	1	NV-HD660PM
B6 (1)	VHD0762	SCREW	3	
B7 (1)	XTV26+6FZ	SCREW	2	
B8 (1)	XTV26+8F	SCREW	3	
B9 (1)	XQN2+AJ4	SCREW	2	
B10 (1)	VHD0342	SCREW	3	
B11 (1)	VHD0844	SCREW	2	NV-SD460PM/AR/BR

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
B12 (1)	VHD0435	SCREW	2	NV-SD460PM/AR/BR
B13 (1)	XXE3W4FP	SCREW	1	NV-SD460PM/AR/BR
N1 (1)	VHN0192	NUT	3	
N2 (1)	VHN0193	NUT	1	
W1 (1)	VMX2208	WASHER	3	
W2 (1)	XWGV26D5G	WASHER	1	

Note: 1.* Be sure to make your orders of replacement parts according to this list.

2. IMPORTANT SAFETY NOTICE

Components identified with the mark < ! > have the special characteristics for safety.

When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
100 (2)	VEK5927	STATOR UNIT	1	
101 (2)	VBK0061	FG HEAD	1	
103 (2)	VMA8930	ROTOR STOPPER	1	
104 (2)	VMX1927	OIL SEAL	2	
105 (2)	VXD0140	HOUSING UNIT	1	
106 (2)	VXP1519	ROTOR UNIT	1	
107 (2)	VXG0297	THRUST SCREW UNIT	1	
108 (2)	VDG0913	MAIN CAM GEAR	1	
109 (2)	VDG0956	SUPPLY REEL GEAR	1	
110 (2)	VDG0957	TAKE UP REEL GEAR	1	
111 (2)	VDG0868	WORM WHEEL GEAR	1	
112 (2)	VDG0885	SUB CAM GEAR	1	
113 (2)	VDV0235	TIMING BELT	1	
120 (2)	VDG0866	WORM GEAR	1	
121 (2)	VEM0427	LOADING MOTOR (1) UNIT	1	
123 (2)	VMD1942	MOTOR BRACKET	1	
126 (2)	VML2725	IDLER CONTROL LEVER	1	
127 (2)	VSS0365	MODE SW	1	
128 (2)	VXA5138	SS BRAKE BASE	1	
129 (2)	VXA4799	TENSION ROLLER UNIT	1	
140 (2)	VXL2378	IDLER ARM UNIT	1	
141 (2)	VXL2372	DIRECT LEVER UNIT	1	
142 (2)	VXL2299	SUPPLY LOADING ARM UNIT	1	
143 (2)	VXL2300	TAKE UP LOADING ARM UNIT	1	
144 (2)	VXL2307	MAIN LEVER UNIT	1	
145 (2)	VXP1409	CENTRE CLUTCH	1	
B102 (2)	XTV26+8F	SCREW	2	
B103 (2)	XTV26+6F	SCREW	3	
B104 (2)	VHD0753	SCREW	3	
B105 (2)	VHD0754	SCREW	1	
B106 (2)	XSB26+4FZ	SCREW	1	
W101 (2)	VMX2208	WASHER	4	

Note: 1.* Be sure to make your orders of replacement parts according to this list.

2. IMPORTANT SAFETY NOTICE
Components identified with the mark < ! > have the special characteristics for safety.
When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1 (1)	VWJ0758	FLAT CARD CABLE (6P)	1	P503-AC HEAD
2 (1)	VMA8644	TOP PLATE	1	
3 (1)	VMA8787	CASSETTE GUIDE	1	
4 (1)	VXA4660	SIDE PLATE (L) UNIT	1	
5 (1)	VXL2250	OPENER LEVER UNIT	1	
6 (1)	VXA4661	CASSETTE HOLDER PLATE UNIT	1	
7 (1)	VXA4806	SIDE PLATE (R) UNIT	1	
8 (1)	VXP1339	MAIN SHAFT UNIT	1	
9 (1)	VXL2440	CLEANER ARM UNIT	1	
12 (1)	VBS0052	FE HEAD	1	
13 (1)	VDG0871	CARRIAGE CONNECTION GEAR	1	
14 (1)	VDG0886	PINCH CAM GEAR	1	
15 (1)	VXP1402	IMPEDANCE ROLLER UNIT	1	
20 (1)	VED0217	A/C HEAD (1) UNIT	1	
22 (1)	VMA8624	A/C HEAD BASE	1	
23 (1)	VMB2515	A/C HEAD SPRING	3	
25 (1)	VMA8761	MOUNT ANGLE	1	
26 (1)	VMA9158	HEAD AMP MOUNT ANGLE (L)	1	
27 (1)	VMG0917	EARTH SPRING	1	
28 (1)	VMA8874	INCLIND BASE HOLDER (S)	1	
29 (1)	VMD2078	P5 STOPPER BASE	1	
30 (1)	VXA4927	P5 POST STOPPER	1	
31 (1)	VMA8873	INCLIND BASE HOLDER (T)	1	
32 (1)	VMD2101	OPENER PIECE	1	
33 (1)	VML2776	TENSION SPRING ARM	1	
34 (1)	VMX1544	P4 UPPER LIMITER	1	
35 (1)	VMX2175	P4 SLEEVE	1	
36 (1)	VMX2176	P4 LOWER LIMITER	1	
37 (1)	2SB1370YD01E	POWER TRANSISTOR	1	
40 (1)	VXA5245KIT	INCLINED BASE (S) UNIT	1	
41 (1)	VXP1415	ROLLER POST	2	
42 (1)	VXA5247KIT	INCLINED BASE (T) UNIT	1	
44 (1)	VXA4974	HEAD AMP MOUNT ANGLE (R) U	1	
45 (1)	VMS5383	CASSETTE POSITION FIXTURE	1	
46 (1)	VXL2310	REVIEW ARM UNIT	1	
47 (1)	VXL2306	P5 ARM UNIT	1	
48 (1)	VXL2394	TAKE UP TENSION REGULATOR	1	
48 (1)		ARM UNIT	1	
49 (1)	VXL2246	PINCH ARM UNIT	1	
50 (1)	VMB2434	TENSION SPRING	1	
51 (1)	VXL2309	TENSION ARM (1) UNIT	1	
52 (1)	VXZ0310	TENSION BAND UNIT	1	
60 (1)	VXR0221	SUPPLY REEL TABLE UNIT	1	
61 (1)	VXR0237	TAKE UP REEL TABLE UNIT	1	
62 (1)	VXS0241	EARTH PLATE UNIT	1	NV-HD660PM
63 (1)	VXZ0312	SUPPLY BRAKE ARM UNIT	1	
64 (1)	VXZ0313	TAKE UP BRAKE ARM UNIT	1	
70 (1)	VEG1370	CYLINDER UNIT	1	NV-HD660PM
71 (1)	VXP1760	UPPER CYLINDER UNIT	1	NV-HD660PM
73 (1)	VEG1221	CYLINDER UNIT	1	NV-SD460AR
73 (1)	VEG1341	CYLINDER UNIT	1	NV-SD460PM/BR
74 (1)	VEK7236	STATOR UNIT	1	NV-SD460PM/AR/BR
75 (1)	VXP1500	ROTOR UNIT	1	NV-SD460PM/AR/BR
76 (1)	VDB1256	CYLINDER RETAINER	1	NV-SD460PM/AR/BR
77 (1)	VEH0824	UPPER CYLINDER UNIT	1	NV-SD460PM/BR
77 (1)	VEH0715	UPPER CYLINDER UNIT	1	NV-SD460AR
78 (1)	VXS0135	EARTH BRUSH UNIT	1	NV-SD460PM/AR/BR
80 (1)	VML2680	RELEASE LEVER	1	
81 (1)	VMB2013	RELEASE SPRING	1	
B2 (1)	XTV26+6F	SCREW	4	
B3 (1)	XTV26+4F	SCREW	2	
B4 (1)	XTN3+8FFZ	SCREW	1	NV-HD660PM
B6 (1)	VHD0762	SCREW	3	
B7 (1)	XTV26+6FZ	SCREW	2	
B8 (1)	XTV26+8F	SCREW	3	
B9 (1)	XQN2+AJ4	SCREW	2	
B10 (1)	VHD0342	SCREW	3	
B11 (1)	VHD0844	SCREW	2	NV-SD460PM/AR/BR

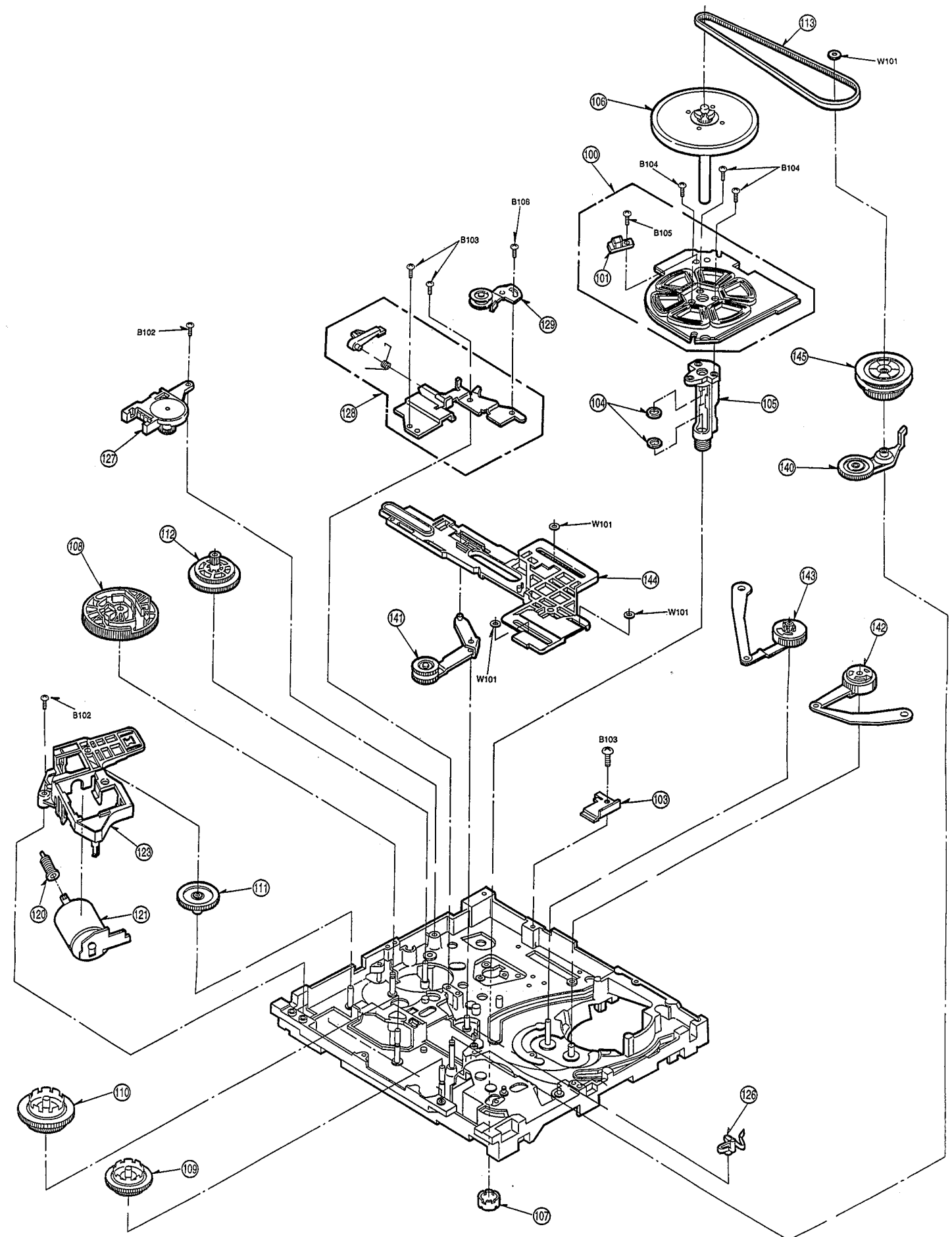
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
B12 (1)	VHD0435	SCREW	2	NV-SD460PM/AR/BR
B13 (1)	XXE3W4FP	SCREW	1	NV-SD460PM/AR/BR
N1 (1)	VHN0192	NUT	3	
N2 (1)	VHN0193	NUT	1	
W1 (1)	VMX2208	WASHER	3	
W2 (1)	XWGV26D5G	WASHER	1	

Note: 1.* Be sure to make your orders of replacement parts according to this list.

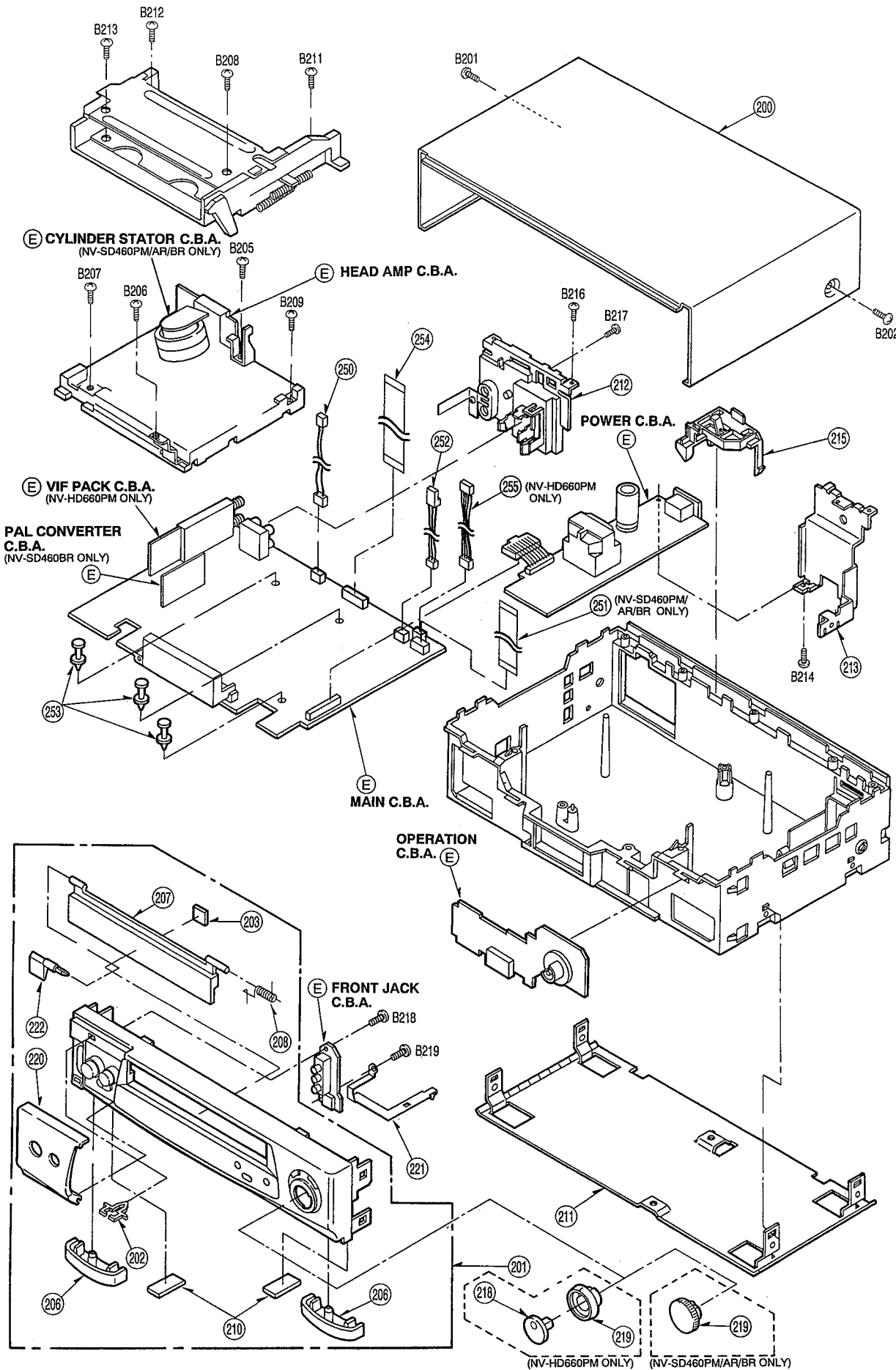
2. IMPORTANT SAFETY NOTICE
Components identified with the mark < ! > have the special characteristics for safety.
When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
100 (2)	VEK5927	STATOR UNIT	1	
101 (2)	VBK0061	FG HEAD	1	
103 (2)	VMA8930	ROTOR STOPPER	1	
104 (2)	VMX1927	OIL SEAL	2	
105 (2)	VXD0140	HOUSING UNIT	1	
106 (2)	VXP1519	ROTOR UNIT	1	
107 (2)	VXQ0297	THRUST SCREW UNIT	1	
108 (2)	VDG0913	MAIN CAM GEAR	1	
109 (2)	VDG0956	SUPPLY REEL GEAR	1	
110 (2)	VDG0957	TAKE UP REEL GEAR	1	
111 (2)	VDG0868	WORM WHEEL GEAR	1	
112 (2)	VDG0885	SUB CAM GEAR	1	
113 (2)	VDV0235	TIMING BELT	1	
120 (2)	VDG0866	WORM GEAR	1	
121 (2)	VEM0427	LOADING MOTOR (1) UNIT	1	
123 (2)	VMD1942	MOTOR BRACKET	1	
126 (2)	VML2725	IDLER CONTROL LEVER	1	
127 (2)	VSS0365	MODE SW	1	
128 (2)	VXA5138	SS BRAKE BASE	1	
129 (2)	VXA4799	TENSION ROLLER UNIT	1	
140 (2)	VXL2378	IDLER ARM UNIT	1	
141 (2)	VXL2372	DIRECT LEVER UNIT	1	
142 (2)	VXL2299	SUPPLY LOADING ARM UNIT	1	
143 (2)	VXL2300	TAKE UP LOADING ARM UNIT	1	
144 (2)	VXL2307	MAIN LEVER UNIT	1	
145 (2)	VXP1409	CENTRE CLUTCH	1	
B102 (2)	XTV26+8F	SCREW	2	
B103 (2)	XTV26+6F	SCREW	3	
B104 (2)	VHD0753	SCREW	3	
B105 (2)	VHD0754	SCREW	1	
B106 (2)	XSB26+4FZ	SCREW	1	
W101 (2)	VMX2208	WASHER	4	

2. CHASSIS PARTS SECTION (2)



3 CASING PARTS SECTION



Note: 1.* Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark < ! > have the special characteristics for safety.
When replacing any of these components, use only the same type.

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
200 (3)	VGM1272	TOP PANEL	1	
201 (3)	VYP6287	FRONT PANEL (1) UNIT	1	NV-SD460PM
201 (3)	VYP6289	FRONT PANEL (1) UNIT	1	NV-SD460AR
201 (3)	VYP6288	FRONT PANEL (1) UNIT	1	NV-SD460BR
201 (3)	VYP6245	FRONT PANEL (1) UNIT	1	NV-HD660PM
202 (3)	VG00550	LATCH	1	
203 (3)	VMT0502	PAD	1	
206 (3)	VKA0192	LEG	1	
207 (3)	VKF2585	BLINDER PANEL	1	
208 (3)	VMB2521	BLINDER SPRING	1	
210 (3)	VKA0122	FOOT	2	
211 (3)	VKU0409	BOTTOM PLATE	1	
212 (3)	VXA5370	ANT JACK BOARD	1	NV-SD460PM/AR/BR
212 (3)	VXA5372	ANT JACK BOARD	1	NV-HD660PM
213 (3)	VMP4593	POWER PLATE	1	
215 (3)	VG03743	HEAD AMP C.B.A. HOLDER	1	
218 (3)	VGU6770	JOG DIAL	1	NV-HD660PM ONLY
219 (3)	VGU6881	SHUTTLE RING	1	NV-SD460PM/AR/BR
219 (3)	VGU6883	SHUTTLE RING	1	NV-HD660PM
220 (3)	VKF2617	DOOR	1	NV-SD460PM
220 (3)	VKF2619	DOOR	1	NV-SD460AR
220 (3)	VKF2618	DOOR	1	NV-SD460BR
220 (3)	VKF2616	DOOR	1	NV-HD660PM
221 (3)	VMC1073	EARTH SPRING (F)	1	
222 (3)	VDO0148	BLINDER CAM	1	
250 (3)	VEE9221	WIRE CABLE (2P)	1	P4001-FE HEAD
251 (3)	VWJ1092	FLAT CARD CABLE	1	P2003-CYLINDER STATOR NV-SD460PM/AR/BR ONLY
252 (3)	VEE9223	WIRE CABLE (3P)	1	P2502-POWER TR.
253 (3)	VMX2233	C.B.A. SPACER	3	
254 (3)	VWJ0904	FLAT CARD CABLE	1	P2501-P1507
255 (3)	VEE9706	WIRE CABLE (5P)	1	P2001-P2902 NV-HD660PM ONLY
B201-B202	VHD0378	SCREW	2	
B205-B207	VHD0168	SCREW	3	
B208	XTV26+10F	SCREW	1	
B209	VHD0874	SCREW	1	
B211-B213	XTV26+8FR	SCREW	3	
B214	VHD0418	SCREW	1	
B216	VHD0773	SCREW	1	
B217	XSN3+10FZ	SCREW	1	
B218-B219	XTN26+8GR	SCREW	2	

Note: 1.* Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark < ! > have the special characteristics for safety.
When replacing any of these components, use only the same type.

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
300 (4)	VQT6693	OPERATING INSTRUCTIONS (ENGLISH, SPANISH)	1	NV-SD460PM
300 (4)	VQT6695	OPERATING INSTRUCTIONS (SPANISH)	1	NV-SD460AR
300 (4)	VQT6694	OPERATING INSTRUCTIONS (PORTUGUESE)	1	NV-SD460BR
300 (4)	VQT6642	OPERATING INSTRUCTIONS (ENGLISH, SPANISH)	1	NV-HD660PM
301 (4)	VJA0667	AC CORD	1	NV-SD460PM/BR
301 (4)	VJA0713	AC CORD	1	NV-SD460AR
302 (4)	VJA0812	CABLE	1	
303 (4)	VJS1993	AC PLUG ADAPTOR	1	NV-SD460PM/BR
304 (4)	VEQ1860	REMOTE CONTROLLER	1	NV-SD460PM/AR/BR
304 (4)	VEQ1888	REMOTE CONTROLLER	1	NV-HD660PM
305 (4)	VGP3632	DOOR PANEL	1	NV-SD460PM/AR/BR ONLY
306 (4)	VKF2115	BATTERY COVER	1	NV-SD460PM/AR/BR ONLY
307 (4)	VPK1726	ACCESSORY BOX	1	
308 (4)	VPN4139	CUSHION (R)	1	
309 (4)	VPN4476	CUSHION (L)	1	
310 (4)	VPK8692	PACKING CASE	1	NV-SD460PM
310 (4)	VPK8697	PACKING CASE	1	NV-SD460AR
310 (4)	VPK8694	PACKING CASE	1	NV-SD460BR
310 (4)	VPK8690	PACKING CASE	1	NV-HD660PM

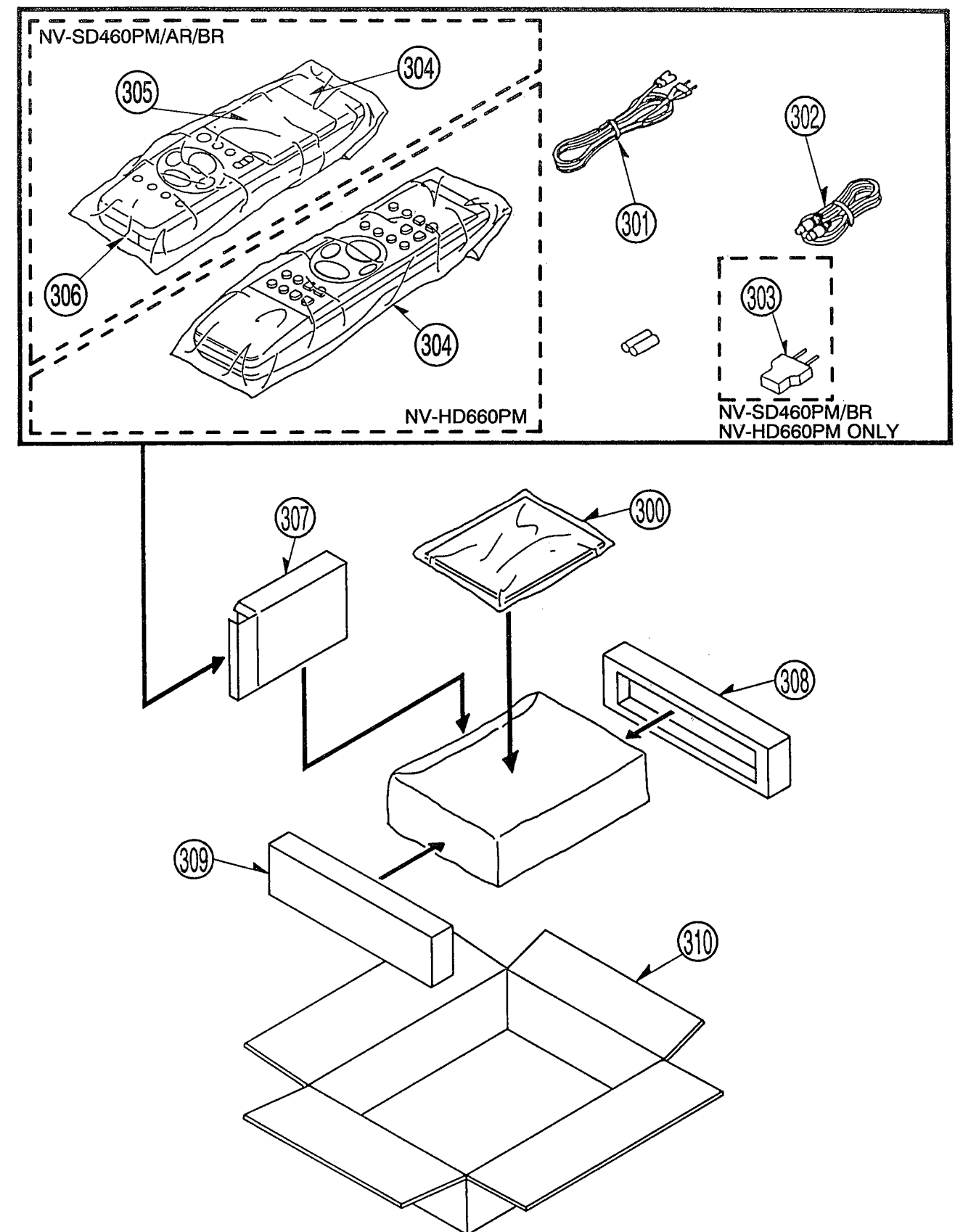
Note: 1.* Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
 Components identified with the mark < ! > have the special characteristics for safety.
 When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
200 (3)	VGM1272	TOP PANEL	1	
201 (3)	VYP6287	FRONT PANEL (1) UNIT	1	NV-SD460PM
201 (3)	VYP6289	FRONT PANEL (1) UNIT	1	NV-SD460AR
201 (3)	VYP6288	FRONT PANEL (1) UNIT	1	NV-SD460BR
201 (3)	VYP6245	FRONT PANEL (1) UNIT	1	NV-HD660PM
202 (3)	VG00550	LUTCH	1	
203 (3)	VMT0502	PAD	1	
206 (3)	VKA0192	LEG	1	
207 (3)	VKF2585	BLINDER PANEL	1	
208 (3)	VMB2521	BLINDER SPRING	1	
210 (3)	VKA0122	FOOT	2	
211 (3)	VKU0409	BOTTOM PLATE	1	
212 (3)	VXA5370	ANT JACK BOARD	1	NV-SD460PM/AR/BR
212 (3)	VXA5372	ANT JACK BOARD	1	NV-HD660PM
213 (3)	VMP4593	POWER PLATE	1	
215 (3)	VG03743	HEAD AMP C. B. A. HOLDER	1	
218 (3)	VGU6770	JOG DIAL	1	NV-HD660PM ONLY
219 (3)	VGU6881	SHUTTLE RING	1	NV-SD460PM/AR/BR
219 (3)	VGU6883	SHUTTLE RING	1	NV-HD660PM
220 (3)	VKF2617	DOOR	1	NV-SD460PM
220 (3)	VKF2619	DOOR	1	NV-SD460AR
220 (3)	VKF2618	DOOR	1	NV-SD460BR
220 (3)	VKF2616	DOOR	1	NV-HD660PM
221 (3)	VMG1073	EARTH SPRING (F)	1	
222 (3)	VDK0148	BLINDER CAM	1	
250 (3)	VEE9221	WIRE CABLE (2P)	1	P4001-FE HEAD
251 (3)	VWJ1092	FLAT CARD CABLE	1	P2003-CYLINDER STATOR NV-SD460PM/AR/BR ONLY
252 (3)	VEE9223	WIRE CABLE (3P)	1	P2502-POWER TR.
253 (3)	VMX2233	C. B. A. SPACER	3	
254 (3)	VWJ0904	FLAT CARD CABLE	1	P2501-P1507
255 (3)	VEE9706	WIRE CABLE (5P)	1	P2001-P2902 NV-HD660PM ONLY
B201-B202	VHD0378	SCREW	2	
B205-B207	VHD0168	SCREW	3	
B208	XTV26+10F	SCREW	1	
B209	VHD0874	SCREW	1	
B211-B213	XTV26+8FR	SCREW	3	
B214	VHD0418	SCREW	1	
B216	VHD0773	SCREW	1	
B217	XSN3+10FZ	SCREW	1	
B218-B219	XTN26+8GR	SCREW	2	

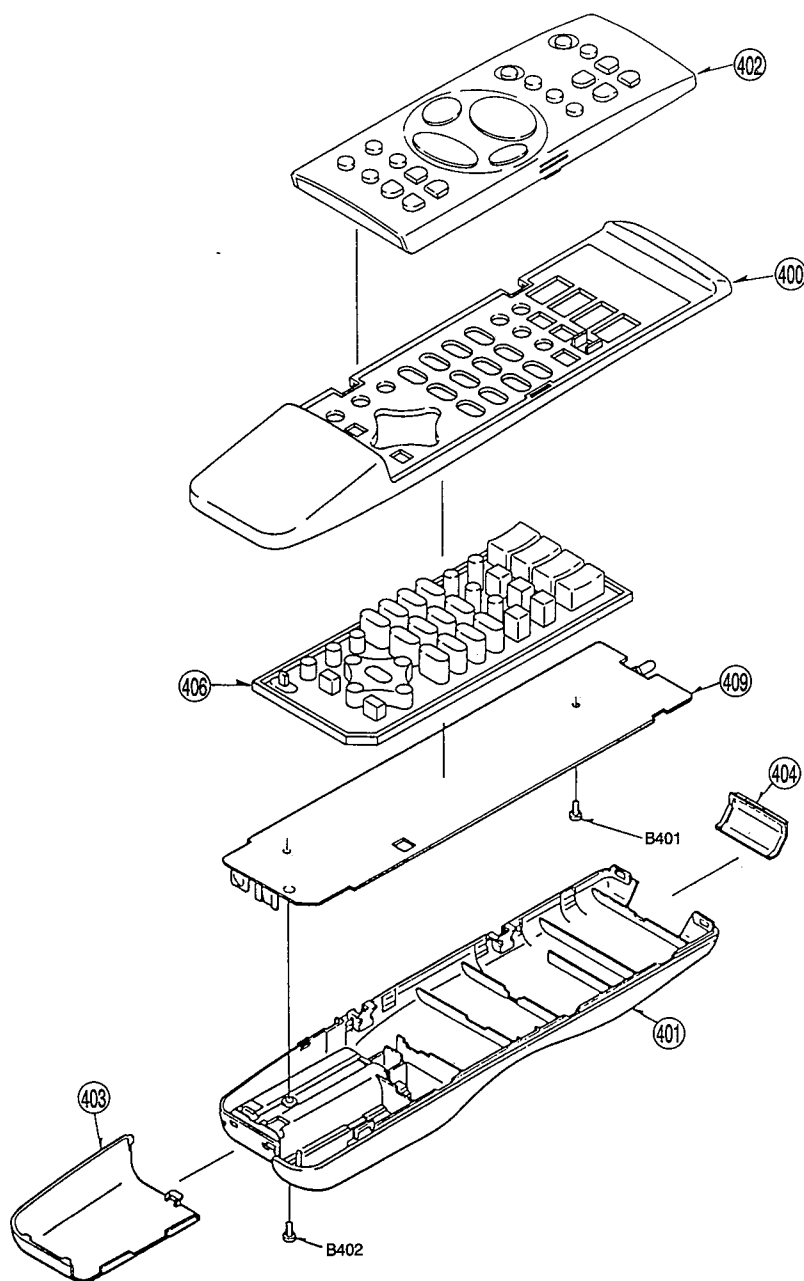
Note: 1.* Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
 Components identified with the mark < ! > have the special characteristics for safety.
 When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
300 (4)	VQT6693	OPERATING INSTRUCTIONS (ENGLISH, SPANISH)	1	NV-SD460PM
300 (4)	VQT6695	OPERATING INSTRUCTIONS (SPANISH)	1	NV-SD460AR
300 (4)	VQT6694	OPERATING INSTRUCTIONS (PORTUGUESE)	1	NV-SD460BR
300 (4)	VQT6642	OPERATING INSTRUCTIONS (ENGLISH, SPANISH)	1	NV-HD660PM
301 (4)	VJA0667	AC CORD	1	NV-SD460PM/BR NV-HD660PM
301 (4)	VJA0713	AC CORD	1	NV-SD460AR
302 (4)	VJA0812	CABLE	1	
303 (4)	VJS1993	AC PLUG ADAPTOR	1	NV-SD460PM/BR NV-HD660PM
304 (4)	VEQ1860	REMOTE CONTROLLER	1	NV-SD460PM/AR/BR
304 (4)	VEQ1888	REMOTE CONTROLLER	1	NV-HD660PM
305 (4)	VGP3632	DOOR PANEL	1	NV-SD460PM/AR/BR ONLY
306 (4)	VKF2115	BATTERY COVER	1	NV-SD460PM/AR/BR ONLY
307 (4)	VPK1726	ACCESSORY BOX	1	
308 (4)	VPN4139	CUSHION (R)	1	
309 (4)	VPN4476	CUSHION (L)	1	
310 (4)	VP88692	PACKING CASE	1	NV-SD460PM
310 (4)	VP88697	PACKING CASE	1	NV-SD460AR
310 (4)	VP88694	PACKING CASE	1	NV-SD460BR
310 (4)	VP88690	PACKING CASE	1	NV-HD660PM

4. PACKING PARTS SECTION



5 REMOTE CONTROLLER UNIT (NV-HD660PM ONLY)



Note: 1.* Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark < ! > have the special characteristics for safety.
When replacing any of these components, use only the same type.

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
400 (5)	VYK7390	TOP COVER UNIT	1	NV-HD660PM
401 (5)	VYK5446	BOTTOM COVER UNIT	1	NV-HD660PM
402 (5)	VYK7391	DOOR PANEL UNIT	1	NV-HD660PM
403 (5)	VKF2115	BATTERY COVER UNIT	1	NV-HD660PM
404 (5)	VKW1802	IR WINDOW	1	NV-HD660PM
406 (5)	VSP0875	RUBBER CONTACT	1	NV-HD660PM
409 (5)	-----	REMOTE CONTROLLER G. B. A.	1	NV-HD660PM
				THIS C. B. A. IS NOT SUPPLIED AS SPARE PART.
B401 (5)	XTB2+6G	SCREW	1	NV-HD660PM
B402 (5)	XTB2+8GFZ	SCREW	1	NV-HD660PM

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
	VFM8080HQFP	SERVICE FIXTURES & TOOLS		
	VFK0335	VHS ALIGNMENT TAPE (NTSC)	1	
		RETAINING RING REMOVER (3MM/4MM)	1	
	VFK0329	POST ADJUSTMENT SCREWDRIVE	1	
	VFK0326	HEX WRENCH SET	1	
	VFK0132	BACK TENSION METER	1	
	VFK27	HEAD CLEANING STICK	1	
	MOR265	MORLYTONE GREASE	1	
	VFK0341	UPPER CYLINDER REMOVER	1	
	VFK0680	WHITE GREASE	1	
	VFK0851	STATOR CENTERING TOOL	1	
	VFK0330	FINE ADJUSTMENT GEAR DRIVE	1	

4-2. ELECTRICAL REPLACEMENT PARTS LIST

Note: 1. Be sure to make your orders of replacement parts according to this list.
 2. IMPORTANT SAFETY NOTICE: Components identified with the mark <1> have the special characteristics for safety. When replacing any of these components, use only the same type.
 3. Unless otherwise specified, All resistors are in OHMS, K=1,000 OHMS. All capacitors are in MICRO-FARADS(uF), P=uuF.
 4. The P.C.Board units marked with '■' show below the main assembled parts.
 5. The marking(RTL) indicates the retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
■	VEP06B35L	MAIN C. B. A. (PAGE: 4-8)	1	(RTL) NV-HD660PM INCLUDING THE TV DEMODULATOR PACK C. B. A. (VEP07937B).
■	VEP07937B	TV DEMODULATOR PACK C. B. A.	1	(RTL) INCLUDED IN MAIN C. B. A. (VEP06B35L).
■	VEP06B35R	MAIN C. B. A. (PAGE: 4-11)	1	(RTL) NV-SD460AR
■	VEP06B35Q	MAIN C. B. A. (PAGE: 4-14)	1	(RTL) NV-SD460BR INCLUDING THE PAL INTERFACE C. B. A. (VEP03D36A).
■	VEP03D36A	PAL INTERFACE C. B. A.	1	(RTL) INCLUDED IN MAIN C. B. A. (VEP06B35Q).
■	VEP06B35P	MAIN C. B. A. (PAGE: 4-18)	1	(RTL) NV-SD460PM
■	VEP05331A	HEAD AMP C. B. A. (PAGE: 4-21)	1	(RTL) NV-HD660PM
■	VEP05332A	HEAD AMP C. B. A. (PAGE: 4-21)	1	(RTL) NV-SD460AR/BR/PM
■	VEP07942B	OPERATION C. B. A. (PAGE: 4-22)	1	(RTL) NV-HD660PM
■	VEP07942F	OPERATION C. B. A. (PAGE: 4-22)	1	(RTL) NV-SD460AR
■	VEP07942E	OPERATION C. B. A. (PAGE: 4-22)	1	(RTL) NV-SD460BR
■	VEP07942D	OPERATION C. B. A. (PAGE: 4-22)	1	(RTL) NV-SD460PM
■	VEP07943A	FRONT JACK C. B. A. (PAGE: 4-22)	1	(RTL) NV-HD660PM
■	VEP07943B	FRONT JACK C. B. A. (PAGE: 4-22)	1	(RTL) NV-SD460AR/BR/PM
△	VEP01774B	POWER C. B. A. (PAGE: 4-22)	1	(RTL)
■	VEX0129	CYLINDER DRIVE C. B. A. (PAGE: 4-23)	1	(RTL) NV-HD660PM
■	-----	CYLINDER STATOR C. B. A. (PAGE: 4-23)	1	NV-SD460AR/BR/PM C. B. A. IS INCLUDED IN CYLINDER STATOR UNIT (VEK7236).
■	-----	RT CONNECTION C. B. A. (PAGE: 4-23)	1	NV-SD460AR/BR/PM C. B. A. IS INCLUDED IN CYLINDER UNIT.
■	-----	MOTOR C. B. A. (PAGE: 4-23)	1	C. B. A. IS INCLUDED IN LOADING MOTOR (1) UNIT

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
△	ENG46117G	TUNER	1	(VEM0427). NV-HD660PM
△	ENG56416G	TUNER	1	NV-SD460AR/BR/PM
△	F1101	XBA2C16TB0	1	FUSE
■	VEP06B35L	MAIN C. B. A.	1	(RTL) NV-HD660PM
B7501	GR2354-16UF	BATTERY	1	
C0701	ECEA0JKA470	E. CAPACITOR 6.3V	47U	1
C0702	ECQV1H224B46	P. CAPACITOR 50V	0.22U	1
C0703	ECEA1CKA100	E. CAPACITOR 16V	10U	1
C0704	ECEA1HKA47	E. CAPACITOR 50V	0.47U	1
C0705	ECEA1HKA010	E. CAPACITOR 50V	1U	1
C0706	ECUX1H472KBV	C. CAPACITOR CH 50V	4700P	1
C0708	ECUX1H180JCV	C. CAPACITOR CH 50V	18P	1
C0710	ECUX1H330JPV	C. CAPACITOR CH 50V	33P	1
C0711	ECUM1H103ZFN	C. CAPACITOR CH 50V	0.01U	1
C0712	ECUX1H103ZVF	C. CAPACITOR CH 50V	0.01U	1
C0713	ECUX1H472KBV	C. CAPACITOR CH 50V	4700P	1
C0714	ECUX1H103ZVF	C. CAPACITOR CH 50V	0.01U	1
C0717	ECUM1H020CCN	C. CAPACITOR CH 50V	2P	1
C2001	ECUM1C105ZFN	C. CAPACITOR CH 16V	1U	1
C2002	ECUM1E104KBN	C. CAPACITOR CH 25V	0.1U	1
C2003	ECEA1HKNR47	E. CAPACITOR 50V	0.47U	1
C2005	ECUM1H102KBN	C. CAPACITOR CH 50V	1000P	1
C2008	ECUM1H104ZFN	C. CAPACITOR CH 50V	0.1U	1
C2009	ECUM1H392KBN	C. CAPACITOR CH 50V	3900P	1
C2011	ECUM1H472KBN	C. CAPACITOR CH 50V	4700P	1
C2012	ECEA1EKA4R7	E. CAPACITOR 25V	4.7U	1
C2013	ECUM1C105ZFN	C. CAPACITOR CH 16V	1U	1
C2014	ECEA0JKA221	E. CAPACITOR 6.3V	220U	1
C2015	ECEA1CKA100	E. CAPACITOR 16V	10U	1
C2016	ECEA0JKA221	E. CAPACITOR 6.3V	220U	1
C2017	ECUM1H222KBN	C. CAPACITOR CH 50V	2200P	1
C2018	ECQV1H563B46	P. CAPACITOR 50V	0.056U	1
C2019	ECUM1H563ZFN	C. CAPACITOR CH 50V	0.056U	1
C2501	ECEA1HKA2R2	E. CAPACITOR 50V	2.2U	1
C2502	ECEA1CKA470	E. CAPACITOR 16V	47U	1
C2503	ECEA1HKA2R2	E. CAPACITOR 50V	2.2U	1
C2504	ECEA1HKNR22	E. CAPACITOR 50V	0.22U	1
C2505	ECEA1HKA010	E. CAPACITOR 50V	1U	1
C2506, 07	ECUM1E333KBN	C. CAPACITOR CH 25V	0.033U	2
C2508	ECUM1H103KBN	C. CAPACITOR CH 50V	0.01U	1
C2510	ECQV1H563B46	P. CAPACITOR 50V	0.056U	1
C2511	ECUM1H563ZFN	C. CAPACITOR CH 50V	0.056U	1
C2512-14	ECUM1E333KBN	C. CAPACITOR CH 25V	0.033U	3
C2515	ECEA1HKA2R2	E. CAPACITOR 50V	2.2U	1
C3003	ECUM1H103KBN	C. CAPACITOR CH 50V	0.01U	1
C3004	ECUM1H070DCN	C. CAPACITOR CH 50V	7P	1
C3005	ECUM1H103ZFN	C. CAPACITOR CH 50V	0.01U	1
C3006	ECUM1H151JCN	C. CAPACITOR CH 50V	150P	1
C3007	ECUM1E104KBN	C. CAPACITOR CH 25V	0.1U	1
C3008	ECEA0JKA470	E. CAPACITOR 6.3V	47U	1
C3009	ECUM1H070DCN	C. CAPACITOR CH 50V	7P	1
C3010, 11	ECUM1H820JCN	C. CAPACITOR CH 50V	82P	2
C3012	ECEA0JKA470	E. CAPACITOR 6.3V	47U	1
C3013	ECUM1H103ZFN	C. CAPACITOR CH 50V	0.01U	1
C3014	ECEA1HKA3R3	E. CAPACITOR 50V	3.3U	1
C3015	ECUM1H181JCN	C. CAPACITOR CH 50V	180P	1
C3016	ECUM1H330JCN	C. CAPACITOR CH 50V	33P	1
C3017	ECUM1H220JCN	C. CAPACITOR CH 50V	22P	1
C3018	ECEA1HKA47	E. CAPACITOR 50V	0.47U	1
C3020	ECEA1HKA22	E. CAPACITOR 50V	0.22U	1
C3021	ECUM1H151JCN	C. CAPACITOR CH 50V	150P	1
C3022	ECEA1HKA010	E. CAPACITOR 50V	1U	1
C3023	ECUM1H103ZFN	C. CAPACITOR CH 50V	0.01U	1

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3024	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	1		G4601	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
C3025	ECA0JM471	E. CAPACITOR 6.3V 470U	1		G4602	ECEA0JKA101	E. CAPACITOR 6.3V 100U	1	
C3026, 27	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	2		G4603	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
G3028	ECEA1HKAR47	E. CAPACITOR 50V 0.47U	1		G4604	ECEA1AKA330	E. CAPACITOR 10V 33U	1	
G3029	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1		G4605	ECUM1H103KBN	C. CAPACITOR CH 50V 0.01U	1	
G3030	ECUM1E333KBN	C. CAPACITOR CH 25V 0.033U	1		G4606	ECUM1H182KBN	C. CAPACITOR CH 50V 1800P	1	
G3031	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		G4607	ECUM1H332KBN	C. CAPACITOR CH 50V 3300P	1	
G3036	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1		G4608	ECUM1H103KBN	C. CAPACITOR CH 50V 0.01U	1	
G3037	ECUM1H330JCN	C. CAPACITOR CH 50V 33P	1		G4609	ECUM1H122KBN	C. CAPACITOR CH 50V 1200P	1	
G3038	ECEA1EKA4R7	E. CAPACITOR 25V 4.7U	1		G4610	ECEA1HKA010	E. CAPACITOR 50V 1U	1	
G3039	ECUM1H152JCN	C. CAPACITOR CH 50V 1500P	1		G6002	ECEA1CKA470	E. CAPACITOR 16V 47U	1	
G3040	ECUM1H270JCN	C. CAPACITOR CH 50V 27P	1		G6003	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
G3041	ECA0JM471	E. CAPACITOR 6.3V 470U	1		G6005	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
G3042, 43	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	2		G6006	ECEA0JKA470	E. CAPACITOR 6.3V 47U	1	
G3044	ECUM1H223KBN	C. CAPACITOR CH 50V 0.022U	1		G6007, 08	ECUM1H180JCN	C. CAPACITOR CH 50V 18P	2	
G3045	ECEA1HKAR47	E. CAPACITOR 50V 0.47U	1		G6010	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
G3046	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		G6014	ECEA1HKA3R3	E. CAPACITOR 50V 3.3U	1	
G3048	ECEA1CKA100	E. CAPACITOR 16V 10U	1		G6018	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
G3049	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		G6019	ECUM1C224ZFN	C. CAPACITOR CH 16V 0.22U	1	
G3050	ECA0JM471	E. CAPACITOR 6.3V 470U	1		G6020	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
G3051	ECEA1HKAR22	E. CAPACITOR 50V 0.22U	1		G7301	ECEA1CKN100	E. CAPACITOR 16V 10U	1	
G3052	ECEA1CKA100	E. CAPACITOR 16V 10U	1		G7303	ECEA0JKA470	E. CAPACITOR 6.3V 47U	1	
G3053	ECEA1HKAR47	E. CAPACITOR 50V 0.47U	1		G7309, 10	ECEA1CKA100	E. CAPACITOR 16V 10U	2	
G3054	ECEA1CKA100	E. CAPACITOR 16V 10U	1		G7401	ECEA1HKA010	E. CAPACITOR 50V 1U	1	
G3055	ECEA1EKA4R7	E. CAPACITOR 25V 4.7U	1		G7403	ECA1CM471	E. CAPACITOR 16V 470U	1	
G3056	ECEA1HKA3R3	E. CAPACITOR 50V 3.3U	1		G7404	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
G3057	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1		G7406	ECEA0JKA101	E. CAPACITOR 6.3V 100U	1	
G3058	ECEA1HKAR47	E. CAPACITOR 50V 0.47U	1		G7407	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
G3059	ECEA1HKA3R3	E. CAPACITOR 50V 3.3U	1		G7502	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
G3060	ECUM1H121JCN	C. CAPACITOR CH 50V 120P	1		G7503, 04	ECUM1H270JCN	C. CAPACITOR CH 50V 27P	2	
G3061	ECUM1E473KBN	C. CAPACITOR CH 25V 0.047U	1		G7505	ECUM1H100DCN	C. CAPACITOR CH 50V 10P	1	
G3062	ECEA0JKA470	E. CAPACITOR 6.3V 47U	1		G7506	ECUM1H390JCN	C. CAPACITOR CH 50V 39P	1	
G3063	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		G7507	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
G3065	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		G7508	ECEA0JKA331	E. CAPACITOR 6.3V 330U	1	
G3066	ECUM1H220JCN	C. CAPACITOR CH 50V 22P	1		G7510	ECUM1H391JCN	C. CAPACITOR CH 50V 390P	1	
G3067	ECUM1H180JCN	C. CAPACITOR CH 50V 18P	1		G7511	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
G3068	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1		G7702	ECEA0JKA470	E. CAPACITOR 6.3V 47U	1	
G3069	ECUM1H681JCN	C. CAPACITOR CH 50V 680P	1		G7703	ECUM1H300JCN	C. CAPACITOR CH 50V 30P	1	
G3070	ECUM1H101JCN	C. CAPACITOR CH 50V 100P	1		G7704	ECUM1H100DCN	C. CAPACITOR CH 50V 10P	1	
G3071	ECUM1H680JCN	C. CAPACITOR CH 50V 68P	1		G7705	ECEA1HKA2R2	E. CAPACITOR 50V 2.2U	1	
G3079	ECEA0JKA470	E. CAPACITOR 6.3V 47U	1		G7706-08	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	3	
G3080	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1		G7709	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
G3081	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1		G7711	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
G3086	ECEA1HKA010	E. CAPACITOR 50V 1U	1		G7712	ECA0JM331	E. CAPACITOR 6.3V 330U	1	
G3105	ECUM1H181JCN	C. CAPACITOR CH 50V 180P	1		D1501	LN59LT.VT	LED	1	
G3106-08	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	3		D2001, 02	1SS254	DIODE	2	
G3109	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	1		D2003	MA153	DIODE	1	
G3110	ECEA0JKA221	E. CAPACITOR 6.3V 220U	1		D2501	11ES1	DIODE	1	
G3114, 15	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	2		D3001	1SS254	DIODE	1	
G3116	ECUM1H221JCN	C. CAPACITOR CH 50V 220P	1		D3003	MA4056-H	DIODE	1	
G4017	ECGF1H221JC	C. CAPACITOR 50V 220P	1		D4501	1SS254	DIODE	1	
G4018	ECQB1H223JF	P. CAPACITOR 50V 0.022U	1		D4591, 92	1SS254	DIODE	2	
G4019	ECA1CM470	E. CAPACITOR 16V 47U	1		D6003	11ES1	DIODE	1	
G4020	ECUM1H223KBN	C. CAPACITOR CH 50V 0.022U	1		D7402	MA4300-M	DIODE	1	
G4021	ECUM1H152KBN	C. CAPACITOR CH 50V 1500P	1		D7501	MA4075	DIODE	1	
G4501, 02	VCEA0JAG101	E. CAPACITOR 6.3V 100U	2		D7502, 03	RB441P	DIODE	2	
G4503, 04	VCEA1EAC4R7	E. CAPACITOR 25V 4.7U	2		D7504	MA700	DIODE	1	
G4505	VCEA1CAC100	E. CAPACITOR 16V 10U	1		D7509	1SS254	DIODE	1	
G4506	VCEA1EAC4R7	E. CAPACITOR 25V 4.7U	1		D7511-13	1SS254	DIODE	3	
G4507	ECQB1H223JF	P. CAPACITOR 50V 0.022U	1		D7703	RB441P	DIODE	1	
G4508	ECQB1H103JF	P. CAPACITOR 50V 0.01U	1		DP7501	VSL0338	DISPLAY TUBE	1	
G4509	VCEA1AAC330	E. CAPACITOR 10V 33U	1		IC0701	M52342SP	IC	1	
G4510	VCEA1AAC470	E. CAPACITOR 10V 47U	1		IC1501, 02	ON1387	IC	2	
G4511	ECUM1H223KBN	C. CAPACITOR CH 50V 0.022U	1		IC2501	BA6871BS	IC	1	
G4512	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1		IC3001	HA118201GF	Y/G IC	1	
G4513	VCEA1AAC330	E. CAPACITOR 10V 33U	1		IC3002	MN3880S	IC	1	
G4514	ECQB1H103JF	P. CAPACITOR 50V 0.01U	1		IC3005	BA7654F	IC	1	
G4515	ECQB1H223JF	P. CAPACITOR 50V 0.022U	1		IC4501	BH7775K	IC	1	
G4516	VCEA1EAC4R7	E. CAPACITOR 25V 4.7U	1		IC4601	BA7755AF	IC	1	
G4517	VCEA1CAC100	E. CAPACITOR 16V 10U	1		IC6001	M37776V1BV	IC	1	
G4518	VCEA1EAC4R7	E. CAPACITOR 25V 4.7U	1		IC6002	BA6887-V3	IC	1	
G4519	ECEA0JKA470	E. CAPACITOR 6.3V 47U	1		IC6003	PST993D	IC	1	
G4520, 21	ECUM1H152KBN	C. CAPACITOR CH 50V 1500P	2						
G4551	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1						
G4591	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1						

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC7302	SBX1690-52	IC	1		Q4591	MSD601	TRANSISTOR	1	
IC7501	M37507V8AG	IC	1		Q6001	MSB709-R	TRANSISTOR	1	
IC7701	D6464WVAG	IC	1		Q6004	MSB709	TRANSISTOR	1	
IC7702	BA10393F	IC	1		Q7401	2SD1996-R	TRANSISTOR	1	
IR7501	PNA4601M02VT	IR RECEIVER UNIT	1		QR1001	MUN2211	TRANSISTOR-RESISTOR	1	
JK3001	VJJ0392	JACK	6P	1	QR2001	MUN2213	TRANSISTOR-RESISTOR	1	
K0703	ERJ66EYOR00	M. RESISTOR CH 1/10W	0	1	QR3014	MUN2213	TRANSISTOR-RESISTOR	1	
K3011	ERJ66MZOR00	M. RESISTOR CH 1/10W	0	1	QR4591	XN1215	TRANSISTOR-TRANSISTOR	1	
K4007	ERJ66MZOR00	M. RESISTOR CH 1/10W	0	1	QR4593	MUN2113	TRANSISTOR-RESISTOR	1	
K6001.02	ERJ66MZOR00	M. RESISTOR CH 1/10W	0	2	QR6001	XN1211	TRANSISTOR-RESISTOR	1	
K7503	ERJ66MZOR00	M. RESISTOR CH 1/10W	0	1	QR7301	UN2117	TRANSISTOR-RESISTOR	1	
K7507	ERJ66MZOR00	M. RESISTOR CH 1/10W	0	1	QR7501	MUN2213	TRANSISTOR-RESISTOR	1	
K7512	ERJ66MZOR00	M. RESISTOR CH 1/10W	0	1	QR7702	DTA113TKA	TRANSISTOR-RESISTOR	1	
K7514	ERJ66MZOR00	M. RESISTOR CH 1/10W	0	1	QR7703	MUN2113	TRANSISTOR-RESISTOR	1	
					QR7704	MUN2213	TRANSISTOR-RESISTOR	1	
L0701	VLQEL05S100K	COIL	10UH	1	R0701	ERJ3GEYG102	M. RESISTOR CH 1/16W	1K	1
L0702	VLQ0163JR33	COIL	0.33UH	1	R0702	ERJ3RBD273	M. RESISTOR CH 1/16W	27K	1
L0703	VLQ0163J1R2	COIL	1.2UH	1	R0703	ERJ6RBD333	M. RESISTOR CH 1/10W	33K	1
L3001	VLQ0633J560	COIL	56UH	1	R0704	ERJ3GEYJ470	M. RESISTOR CH 1/16W	47	1
L3002	VLQ0633J680	COIL	68UH	1	R0705	ERJ3GEYG102	M. RESISTOR CH 1/16W	1K	1
L3003	VLQ0633J221	COIL	220UH	1	R0706	ERJ3GEYJ181	M. RESISTOR CH 1/16W	180	1
L3004.05	VLQ0633J680	COIL	68UH	2	R0708	ERJ6GEYG104	M. RESISTOR CH 1/10W	100K	1
L3006	VLQ0633J120	COIL	12UH	1	R0709	ERJ3GEYJ104	M. RESISTOR CH 1/16W	100K	1
L3007	VLQ0633J390	COIL	39UH	1	R0710	ERJ6GEYG103	M. RESISTOR CH 1/10W	10K	1
L3008.09	VLQ0633J680	COIL	68UH	2	R0711	ERJ3GEYJ334	M. RESISTOR CH 1/16W	330K	1
L3011	VLQ0633J220	COIL	22UH	1	R0714	ERJ3GEYJ153	M. RESISTOR CH 1/16W	15K	1
L3012	VLQ0633J101	COIL	100UH	1	R0716	ERJ3GEYJ223	M. RESISTOR CH 1/16W	22K	1
L3013	VLQ0633J390	COIL	39UH	1	R0719	ERJ6GEYOR00	M. RESISTOR CH 1/10W	0	1
L3014	VLQ0633J120	COIL	12UH	1	R0720	ERJ3GEYJ331	M. RESISTOR CH 1/16W	330	1
L3018	VLQ0211J100	COIL	10UH	1	R0722	ERJ3GEYG102	M. RESISTOR CH 1/16W	1K	1
L3019	VLQ0633J560	COIL	56UH	1	R0723	ERJ3GEYOR00	M. RESISTOR CH 1/16W	0	1
L3020	VLQ0633J331	COIL	330UH	1	R0726	ERJ3GEYOR00	M. RESISTOR CH 1/16W	0	1
L3021	VLQ0633J560	COIL	56UH	1	R1001	ERJ66MYG103	M. RESISTOR CH 1/10W	10K	1
L4001	ELESN471KA	COIL	470UH	1	R2001	ERJ66MYG392	M. RESISTOR CH 1/10W	3.9K	1
L7403	VLQ0633J330	COIL	33UH	1	R2002	ERJ66MYJ105	M. RESISTOR CH 1/10W	1M	1
L7405	VLQ0633J101	COIL	100UH	1	R2003	ERJ66MYG102	M. RESISTOR CH 1/10W	1K	1
L7701	VLQ0633J1R5	COIL	1.5UH	1	R2005	ERJ66MYG103	M. RESISTOR CH 1/10W	10K	1
L7702	VLQ0633J330	COIL	33UH	1	R2011	ERJ66MYG222	M. RESISTOR CH 1/10W	2.2K	1
L7704	VLQ0633J680	COIL	68UH	1	R2012-14	ERJ66MYG103	M. RESISTOR CH 1/10W	10K	3
LB3001	ERJ66MZOR00	M. RESISTOR CH 1/10W	0	1	R2501	ERJ66MYG681	M. RESISTOR CH 1/10W	680	1
LB3002	VLP0145	COIL		1	R2502	ERJ66MYG821	M. RESISTOR CH 1/10W	820	1
P1001	VJS3631A011A	CONNECTOR (FEMALE)	11P	1	R2503.04	ERDS2TJ560	C. RESISTOR	1/4W	56
P1501	VJS3821	CONNECTOR (FEMALE)	4P	1	R2505	ERDS1TJ561	C. RESISTOR	1/2W	560
P1502	VJS3640A002	CONNECTOR (FEMALE)	2P	1	R2506	ERJ66MYG432	M. RESISTOR CH 1/10W	4.3K	1
P2001	VJP1232T	CONNECTOR (MALE)	5P	1	R2507	ERJ66MYG102	M. RESISTOR CH 1/10W	1K	1
P2501	VJS3537A015G	CONNECTOR (FEMALE)	15P	1	R2508	ERJ66MYG473	M. RESISTOR CH 1/10W	47K	1
P2502	VJP3502	CONNECTOR (MALE)		1	R2509	ERJ66MYJ684	M. RESISTOR CH 1/10W	680K	1
P3001	VJP3649A020W	CONNECTOR (MALE)	20P	1	R2510	ERJ66MYG103	M. RESISTOR CH 1/10W	10K	1
P3003	VJP3633B005	CONNECTOR (MALE)	5P	1	R2511	ERJ66MYG133	M. RESISTOR CH 1/10W	13K	1
P4001	TJS118601T	CONNECTOR		1	R2512	ERJ66MYJ105	M. RESISTOR CH 1/10W	1M	1
P4002	VJP3646E006	CONNECTOR (MALE)	6P	1	R2513	ERJ66MYG102	M. RESISTOR CH 1/10W	1K	1
P7501	VJP3630A014G	CONNECTOR (MALE)	14P	1	R2514	ERDS2TJ560	C. RESISTOR	1/4W	56
PK0701	VJR0826E006W	CONNECTOR (MALE)	6P	1	R2515	ERX12SJR47	M. RESISTOR	1/2W	0.47
PK7301	VJR0826E009W	CONNECTOR (MALE)	9P	1	R3001	ERJ66MYG561	M. RESISTOR CH 1/10W	560	1
PP0701	VJP3589A004B	CONNECTOR (MALE)	4P	1	R3006.07	ERJ66MYG681	M. RESISTOR CH 1/10W	680	2
Q1501.02	PN205LT-NCVT	PHOTO TRANSISTOR		2	R3008	ERJ66MYG102	M. RESISTOR CH 1/10W	1K	1
Q3001	2SD1996	TRANSISTOR		1	R3009.10	ERJ66MYG750	M. RESISTOR CH 1/10W	75	2
Q3002	MSD601	TRANSISTOR		1	R3011	ERJ66MYG122	M. RESISTOR CH 1/10W	1.2K	1
Q3003.04	MSB709	TRANSISTOR		2	R3012	ERJ66MYG681	M. RESISTOR CH 1/10W	680	1
Q3005	MSC2295	TRANSISTOR		1	R3015	ERJ66MYG102	M. RESISTOR CH 1/10W	1K	1
Q3006	MSD601	TRANSISTOR		1	R3016	ERJ66MYG272	M. RESISTOR CH 1/10W	2.7K	1
Q3007.08	MSC2295	TRANSISTOR		2	R3017	ERJ66MZOR00	M. RESISTOR CH 1/10W	0	1
Q3014	MSB709	TRANSISTOR		1	R3018	ERJ66MYG822	M. RESISTOR CH 1/10W	8.2K	1
Q4001	2SD602-R	TRANSISTOR		1	R3019	ERJ66MYG682	M. RESISTOR CH 1/10W	6.8K	1
Q4501	2SD1468	TRANSISTOR		1	R3020	ERJ66MYG152	M. RESISTOR CH 1/10W	1.5K	1
Q4502	2SA1515	TRANSISTOR		1	R3022	ERJ66MYG103	M. RESISTOR CH 1/10W	10K	1
Q4551	MSD601	TRANSISTOR		1	R3024	ERJ66MYG562	M. RESISTOR CH 1/10W	5.6K	1
					R3025	ERJ66MYG821	M. RESISTOR CH 1/10W	820	1
					R3026	ERJ66MYG103	M. RESISTOR CH 1/10W	10K	1
					R3028	ERJ66MYG332	M. RESISTOR CH 1/10W	3.3K	1
					R3029	ERJ66MYG123	M. RESISTOR CH 1/10W	12K	1
					R3030	ERJ66MYG273	M. RESISTOR CH 1/10W	27K	1
					R3031.32	ERJ66MYG473	M. RESISTOR CH 1/10W	47K	2

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R3033	ERJ66MYG332	M. RESISTOR CH 1/10W 3.3K	1		R6055, 56	ERJ66MYG102	M. RESISTOR CH 1/10W 1K	2	
R3034	ERJ66MYJ391	M. RESISTOR CH 1/10W 390	1		R6057	ERJ66MYG222	M. RESISTOR CH 1/10W 2.2K	1	
R3036	ERJ66MYG122	M. RESISTOR CH 1/10W 1.2K	1		R6058	ERJ66MYG512	M. RESISTOR CH 1/10W 5.1K	1	
R3037	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	1		R6059, 60	ERJ66MYG392	M. RESISTOR CH 1/10W 3.9K	2	
R3038	ERJ66MYG821	M. RESISTOR CH 1/10W 820	1		R6061-63	ERJ66MYG102	M. RESISTOR CH 1/10W 1K	3	
R3039	ERJ66MYG562	M. RESISTOR CH 1/10W 5.6K	1		R6064	ERJ6RBD751	M. RESISTOR CH 1/10W 750	1	
R3040	ERJ66MYJ221	M. RESISTOR CH 1/10W 220	1		R6065	ERJ6RHD6980	M. RESISTOR CH 1/10W	1	
R3041	ERDS2TJ471	C. RESISTOR 1/4W 470	1		R6066	ERJ66MYG122	M. RESISTOR CH 1/10W 1.2K	1	
R3042	ERJ66MYG471	M. RESISTOR CH 1/10W 470	1		R7302, 03	ERJ3G6Y682	M. RESISTOR CH 1/16W 6.8K	2	
R3044	ERJ66MYG821	M. RESISTOR CH 1/10W 820	1		R7304, 05	ERJ3G6Y472	M. RESISTOR CH 1/16W 4.7K	2	
R3045	ERJ66MYG561	M. RESISTOR CH 1/10W 560	1		R7401	ERDS2TJ152	C. RESISTOR 1/4W 1.5K	1	
R3046	ERJ66MYG152	M. RESISTOR CH 1/10W 1.5K	1		R7402, 03	ERJ66MYG222	M. RESISTOR CH 1/10W 2.2K	2	
R3059	ERJ66MYG183	M. RESISTOR CH 1/10W 18K	1		R7404	ERJ66MYG332	M. RESISTOR CH 1/10W 3.3K	1	
R3062	ERJ66MYG182	M. RESISTOR CH 1/10W 1.8K	1		R7405	ERJ66MYG102	M. RESISTOR CH 1/10W 1K	1	
R3064	ERJ66MYJ474	M. RESISTOR CH 1/10W 470K	1		R7407	ERJ66MYG102	M. RESISTOR CH 1/10W 1K	1	
R3066	ERJ66MYG102	M. RESISTOR CH 1/10W 1K	1		R7501	ERJ66MYG104	M. RESISTOR CH 1/10W 100K	1	
R3067	ERJ66MYG272	M. RESISTOR CH 1/10W 2.7K	1		R7502	ERJ66MYG101	M. RESISTOR CH 1/10W 100	1	
R3068	ERJ66MYG562	M. RESISTOR CH 1/10W 5.6K	1		R7503	ERJ66MYG331	M. RESISTOR CH 1/10W 330	1	
R3069	ERJ66MZOR00	M. RESISTOR CH 1/10W 0	1		R7504	ERJ66MYG334	M. RESISTOR CH 1/10W 330K	1	
R3079	ERJ66MYJ225	M. RESISTOR CH 1/10W 2.2M	1		R7508	ERJ66MYG102	M. RESISTOR CH 1/10W 1K	1	
R3080	ERJ66EYJ395	M. RESISTOR CH 1/10W 3.9M	1		R7510	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
R3082	ERJ66MYG114	M. RESISTOR CH 1/10W 110K	1		R7514, 15	ERJ66MYJ223	M. RESISTOR CH 1/10W 22K	2	
R3085	ERJ66MYG101	M. RESISTOR CH 1/10W 100	1		R7523	ERJ66MZOR00	M. RESISTOR CH 1/10W 0	1	
R3088	ERJ66MYJ124	M. RESISTOR CH 1/10W 120K	1		R7532	ERJ66MYG153	M. RESISTOR CH 1/10W 15K	1	
R3091	ERJ66MYG102	M. RESISTOR CH 1/10W 1K	1		R7533, 34	ERJ66MYG332	M. RESISTOR CH 1/10W 3.3K	2	
R3093	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	1		R7536	ERJ66MYG563	M. RESISTOR CH 1/10W 56K	1	
R4016	ERJ66MYG472	M. RESISTOR CH 1/10W 4.7K	1		R7702	ERJ66MYG122	M. RESISTOR CH 1/10W 1.2K	1	
R4017	ERJ66MYG332	M. RESISTOR CH 1/10W 3.3K	1		R7703	ERJ66MYG222	M. RESISTOR CH 1/10W 2.2K	1	
R4018	ERJ66MYG100	M. RESISTOR CH 1/10W 10	1		R7706	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	1	
R4037	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	1		R7708	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	1	
R4501, 02	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	2		R7710	ERJ66MYG562	M. RESISTOR CH 1/10W 5.6K	1	
R4503-06	ERJ66MYG472	M. RESISTOR CH 1/10W 4.7K	4		R7711	ERJ66MYG104	M. RESISTOR CH 1/10W 100K	1	
R4509	ERJ6RBD273	M. RESISTOR CH 1/10W 27K	1		R7712	ERJ66MYG682	M. RESISTOR CH 1/10W 6.8K	1	
R4510	ERJ6RBD473	M. RESISTOR CH 1/10W 47K	1		R7714	ERJ66MYJ223	M. RESISTOR CH 1/10W 22K	1	
R4511	ERJ6RBD243	M. RESISTOR CH 1/10W 24K	1		R7716	ERJ66MYG302	M. RESISTOR CH 1/10W 3K	1	
R4512	ERJ6RBD273	M. RESISTOR CH 1/10W 27K	1		R7717	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	1	
R4513	ERJ6RBD473	M. RESISTOR CH 1/10W 47K	1						
R4514	ERJ66MYJ225	M. RESISTOR CH 1/10W 2.2M	1		S1501	VES0709	SWITCH	1	
R4515, 16	ERDS2TJ471	C. RESISTOR 1/4W 470	2		S7401	VSS0398	SWITCH	1	
R4551	ERJ66MYG682	M. RESISTOR CH 1/10W 6.8K	1		S7503	EVQ11409K	SWITCH	1	
R4552	ERJ66MYG222	M. RESISTOR CH 1/10W 2.2K	1		S7505-07	EVQ11G07K	SWITCH	3	
R4553	ERJ66MYJ474	M. RESISTOR CH 1/10W 470K	1		S7508	EVQ11409K	SWITCH	1	
R4591	ERJ66MYG222	M. RESISTOR CH 1/10W 2.2K	1						
R4601	ERJ66MYJ105	M. RESISTOR CH 1/10W 1M	1		T0703	EQV5EC072A	TRANSFORMER	1	
R4602	ERJ66MYG822	M. RESISTOR CH 1/10W 8.2K	1		T4001	EQ070F024Q	TRANSFORMER	1	
R4603	ERJ66MYG123	M. RESISTOR CH 1/10W 12K	1						
R4604	ERJ66MYG334	M. RESISTOR CH 1/10W 330K	1		VR7301	EVNCBAA00B23	V. RESISTOR 2K	1	
R4605	ERJ66MYJ221	M. RESISTOR CH 1/10W 220	1						
R4606	ERJ66MYG153	M. RESISTOR CH 1/10W 15K	1		X0702	EFCS4R5MS5W	FILTER	1	
R4607	ERJ66MYG102	M. RESISTOR CH 1/10W 1K	1		X0703	EFCS3F03W3B	FILTER	1	
R4608	ERJ66MYJ223	M. RESISTOR CH 1/10W 22K	1		X0704	VLF1159	FILTER	1	
R4609	ERJ66MYG822	M. RESISTOR CH 1/10W 8.2K	1		X3001	VXS0803	CRYSTAL OSCILLATOR	1	
R6001	ERX1SJ1R8	M. RESISTOR 1W 1.8	1		X6001	VXS0583	CRYSTAL OSCILLATOR	1	
R6002	ERJ66MYG913	M. RESISTOR CH 1/10W 91K	1		X7501	VXS0673	CRYSTAL OSCILLATOR	1	
R6009	ERJ66MYG332	M. RESISTOR CH 1/10W 3.3K	1		X7502	VXS0666	CRYSTAL OSCILLATOR	1	
R6016	ERJ66MYG102	M. RESISTOR CH 1/10W 1K	1						
R6017	ERJ66MYJ105	M. RESISTOR CH 1/10W 1M	1		ZB1501, 02	VMD2329	PHOTO TRANSISTOR HOLDER	2	
R6023, 24	ERJ66MYJ221	M. RESISTOR CH 1/10W 220	2		ZB1503	VMD2330	LED HOLDER	1	
R6025, 26	ERJ66MYJ223	M. RESISTOR CH 1/10W 22K	2		ZB1504	VMD2328	REEL GUIDE	1	
R6027, 28	ERJ66MYG272	M. RESISTOR CH 1/10W 2.7K	2		ZB7001	VX00424	FIP HOLDER	1	
R6030	ERJ66MYG473	M. RESISTOR CH 1/10W 47K	1						
R6034	ERJ66MYJ823	M. RESISTOR CH 1/10W 82K	1				MISCELLANEOUS		
R6036	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	1		△	EN646117G	TUNER	1	
R6037	ERJ66MYJ223	M. RESISTOR CH 1/10W 22K	1			VMP4471	TV DEMODULATOR ANGLE	1	FOR TV DEMODU. C. B. A.
R6038, 39	ERJ66MZOR00	M. RESISTOR CH 1/10W 0	2						
R6040	ERJ66MYG333	M. RESISTOR CH 1/10W 33K	1						
R6041	ERJ66MZOR00	M. RESISTOR CH 1/10W 0	1		■	VEP06B35R	MAIN C. B. A.		(RTL) NV-SD460AR
R6042	ERJ66MYG183	M. RESISTOR CH 1/10W 18K	1						
R6044, 45	ERJ66MYG223	M. RESISTOR CH 1/10W 22K	2		B7501	CR2354-1GUF	BATTERY	1	
R6046	ERJ66MYG273	M. RESISTOR CH 1/10W 27K	1						
R6047	ERJ66MYG272	M. RESISTOR CH 1/10W 2.7K	1						
R6048	ERJ66MYG201	M. RESISTOR CH 1/10W 200	1						
R6050	ERDS2TJ271	C. RESISTOR 1/4W 270	1		G2001	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
R6051, 52	ERJ66MYG683	M. RESISTOR CH 1/10W 68K	2		G2002	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
R6053	ERJ66MZOR00	M. RESISTOR CH 1/10W 0	1		G2003	ECEA1HKNR47	E. CAPACITOR 50V 0.47U	1	
					G2005	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C2008	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1		G3056	ECEA1HKA3R3	E. CAPACITOR 50V 3.3U	1	
C2009	ECUM1H392KBN	C. CAPACITOR CH 50V 3900P	1		C3057	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C2011	ECUM1H472KBN	C. CAPACITOR CH 50V 4700P	1		C3058	ECEA1HKAR47	E. CAPACITOR 50V 0.47U	1	
C2012	ECEA1EKA4R7	E. CAPACITOR 25V 4.7U	1		C3059	ECEA1HKA3R3	E. CAPACITOR 50V 3.3U	1	
C2013	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1		C3060	ECUM1H121JCN	C. CAPACITOR CH 50V 120P	1	
C2014	ECEA0JKA221	E. CAPACITOR 6.3V 220U	1		C3061	ECUM1E473KBN	C. CAPACITOR CH 25V 0.047U	1	
C2015	ECEA1CKA100	E. CAPACITOR 16V 10U	1		C3062	ECEA0JKA470	E. CAPACITOR 6.3V 47U	1	
C2016	ECEA0JKA221	E. CAPACITOR 6.3V 220U	1		C3063	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C2017	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1		C3064	ECUM1H271JCN	C. CAPACITOR CH 50V 270P	1	
C2018	ECQV1H563B46	P. CAPACITOR 50V 0.056U	1		C3065	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C2019	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1		C3066	ECUM1H220JCN	C. CAPACITOR CH 50V 22P	1	
C2501	ECEA1HKA2R2	E. CAPACITOR 50V 2.2U	1		C3067	ECUM1H180JCN	C. CAPACITOR CH 50V 18P	1	
C2502	ECEA1CKA470	E. CAPACITOR 16V 47U	1		C3068	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C2503	ECEA1HKA2R2	E. CAPACITOR 50V 2.2U	1		C3069	ECUM1H681JCN	C. CAPACITOR CH 50V 680P	1	
C2504	ECEA1HKNR22	E. CAPACITOR 50V 0.22U	1		C3070, 71	ECUM1H680JCN	C. CAPACITOR CH 50V 68P	2	
C2505	ECEA1HKA010	E. CAPACITOR 50V 1U	1		C3079	ECEA0JKA470	E. CAPACITOR 6.3V 47U	1	
C2506, 07	ECUM1E333KBN	C. CAPACITOR CH 25V 0.033U	2		C3080	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C2508	ECUM1H103KBN	C. CAPACITOR CH 50V 0.01U	1		C3081	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
C2510	ECQV1H563B46	P. CAPACITOR 50V 0.056U	1		C3096	ECEA1HKA010	E. CAPACITOR 50V 1U	1	
C2511	ECUM1H563ZFN	C. CAPACITOR CH 50V 0.056U	1		C3105	ECUM1H181JCN	C. CAPACITOR CH 50V 180P	1	
C2512-14	ECUM1E333KBN	C. CAPACITOR CH 25V 0.033U	3		C3106-08	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	3	
C2515	ECEA1HKA2R2	E. CAPACITOR 50V 2.2U	1		C3109	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	1	
C2517-19	ECEA1VKN4R7	E. CAPACITOR 35V 4.7U	3		C3110	ECEA0JKA221	E. CAPACITOR 6.3V 220U	1	
C2520	ECUM1H473ZFN	C. CAPACITOR CH 50V 0.047U	1		C3111	ECUM1H221JCN	C. CAPACITOR CH 50V 220P	1	
C2521	ECEA0JKA101	E. CAPACITOR 6.3V 100U	1		C3114, 15	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	2	
C2522	ECQV1H683JM	P. CAPACITOR 50V 0.068U	1		C3116	ECUM1H221JCN	C. CAPACITOR CH 50V 220P	1	
C2523-25	ECEA1HKA0R1	E. CAPACITOR 50V 0.1U	3		C4001	ECEA1KA220	E. CAPACITOR 10V 22U	1	
C2526	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1		C4002	ECUM1H392KBN	C. CAPACITOR CH 50V 3900P	1	
C3002	ECUM1H391JCN	C. CAPACITOR CH 50V 390P	1		C4003	ECEA0JKA101	E. CAPACITOR 6.3V 100U	1	
C3003	ECUM1H103KBN	C. CAPACITOR CH 50V 0.01U	1		C4004	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C3004	ECUM1H070DCN	C. CAPACITOR CH 50V 7P	1		C4005-07	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	3	
C3005	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		C4008	ECUM1H103KBN	C. CAPACITOR CH 50V 0.01U	1	
C3006	ECUM1H221JCN	C. CAPACITOR CH 50V 220P	1		C4009	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
C3007	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1		C4010	ECUM1H332KBN	C. CAPACITOR CH 50V 3300P	1	
C3008	ECEA0JKA470	E. CAPACITOR 6.3V 47U	1		C4011	ECUM1H182KBN	C. CAPACITOR CH 50V 1800P	1	
C3009	ECUM1H070DCN	C. CAPACITOR CH 50V 7P	1		C4012	ECEA1HKA010	E. CAPACITOR 50V 1U	1	
C3010	ECUM1H181JCN	C. CAPACITOR CH 50V 180P	1		C4013	ECUM1H103KBN	C. CAPACITOR CH 50V 0.01U	1	
C3011	ECUM1H151JCN	C. CAPACITOR CH 50V 150P	1		C4014	ECUM1H122KBN	C. CAPACITOR CH 50V 1200P	1	
C3012	ECEA0JKA470	E. CAPACITOR 6.3V 47U	1		C4015	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C3013	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		C4016	ECEA1CKA220	E. CAPACITOR 16V 22U	1	
C3014	ECEA1HKA3R3	E. CAPACITOR 50V 3.3U	1		C4017	ECCF1H221JC	C. CAPACITOR 50V 220P	1	
C3015	ECUM1H181JCN	C. CAPACITOR CH 50V 180P	1		C4018	ECQB1H223JF	P. CAPACITOR 50V 0.022U	1	
C3016	ECUM1H330JCN	C. CAPACITOR CH 50V 33P	1		C4019	ECA1CM470	E. CAPACITOR 16V 47U	1	
C3017	ECUM1H220JCN	C. CAPACITOR CH 50V 22P	1		C4020	ECUM1H223KBN	C. CAPACITOR CH 50V 0.022U	1	
C3018	ECEA1HKAR47	E. CAPACITOR 50V 0.47U	1		C4021	ECUM1H152KBN	C. CAPACITOR CH 50V 1500P	1	
C3020	ECEA1HKAR22	E. CAPACITOR 50V 0.22U	1		C4025	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
C3021	ECUM1H151JCN	C. CAPACITOR CH 50V 150P	1		C4026	ECEA1EKA4R7	E. CAPACITOR 25V 4.7U	1	
C3022	ECEA1HKA010	E. CAPACITOR 50V 1U	1		C4520	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1	
C3023	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		C6002	ECEA1CKA470	E. CAPACITOR 16V 47U	1	
C3024	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	1		C6003	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C3025	ECA0JM471	E. CAPACITOR 6.3V 470U	1		C6005	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C3026, 27	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	2		C6006	ECEA0JKA470	E. CAPACITOR 6.3V 47U	1	
C3028	ECEA1EKA4R7	E. CAPACITOR 25V 4.7U	1		C6007, 08	ECUM1H180JCN	C. CAPACITOR CH 50V 18P	2	
C3029	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1		C6010	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C3030	ECUM1E333KBN	C. CAPACITOR CH 25V 0.033U	1		C6014	ECEA1HKA100	E. CAPACITOR 50V 10U	1	
C3031	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		C6018	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C3033	ECUM1H330JCN	C. CAPACITOR CH 50V 33P	1		C6019	ECUM1C224ZFN	C. CAPACITOR CH 16V 0.22U	1	
C3036	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1		C6020	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C3037	ECUM1H330JCN	C. CAPACITOR CH 50V 33P	1		C7401	ECEA1HKA010	E. CAPACITOR 50V 1U	1	
C3038	ECEA1EKA4R7	E. CAPACITOR 25V 4.7U	1		C7403	ECA1CM471	E. CAPACITOR 16V 470U	1	
C3039	ECUM1H271JCN	C. CAPACITOR CH 50V 270P	1		C7404	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C3040	ECUM1H270JCN	C. CAPACITOR CH 50V 27P	1		C7406	ECEA0JKA101	E. CAPACITOR 6.3V 100U	1	
C3041	ECA0JM471	E. CAPACITOR 6.3V 470U	1		C7407	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C3042, 43	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	2		C7501	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C3044	ECUM1H223KBN	C. CAPACITOR CH 50V 0.022U	1		C7502	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C3045	ECEA1HKAR47	E. CAPACITOR 50V 0.47U	1		C7503, 04	ECUM1H270JCN	C. CAPACITOR CH 50V 27P	2	
C3046, 47	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	2		C7505	ECUM1H100DCN	C. CAPACITOR CH 50V 10P	1	
C3048	ECEA1CKA100	E. CAPACITOR 16V 10U	1		C7506	ECUM1H390JCN	C. CAPACITOR CH 50V 39P	1	
C3049	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		C7507	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
C3050	ECA0JM471	E. CAPACITOR 6.3V 470U	1		C7508	ECEA0JKA331	E. CAPACITOR 6.3V 330U	1	
C3051	ECEA1HKAR22	E. CAPACITOR 50V 0.22U	1		C7510	ECUM1H391JCN	C. CAPACITOR CH 50V 390P	1	
C3052	ECEA1CKA100	E. CAPACITOR 16V 10U	1		C7511	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C3053	ECEA1HKAR47	E. CAPACITOR 50V 0.47U	1		C7702	ECEA0JKA470	E. CAPACITOR 6.3V 47U	1	
C3054	ECEA1CKA100	E. CAPACITOR 16V 10U	1		C7703	ECUM1H300JCN	C. CAPACITOR CH 50V 30P	1	
C3055	ECEA1EKA4R7	E. CAPACITOR 25V 4.7U	1		C7704	ECUM1H100DCN	C. CAPACITOR CH 50V 10P	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
G7705	EGEA1HKA2R2	E. CAPACITOR 50V 2.2U	1		P1001	VJS3631A011A	CONNECTOR (FEMALE) 11P	1	
G7706-08	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	3		P1501	VJS3821	CONNECTOR (FEMALE) 4P	1	
G7709	ECUM1H150JCN	C. CAPACITOR CH 50V 15P	1		P1502	VJS3640A002	CONNECTOR (FEMALE) 2P	1	
G7710	ECUM1H120JCN	C. CAPACITOR CH 50V 12P	1		P2003	VJS3537A009G	CONNECTOR (FEMALE) 9P	1	
G7711	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		P2501	VJS3537A015G	CONNECTOR (FEMALE) 15P	1	
G7712	ECA0JM331	E. CAPACITOR 6.3V 330U	1		P2502	VJP3502	CONNECTOR (MALE)	1	
					P3001	VJP3649E016W	CONNECTOR (MALE) 16P	1	
D1501	LN59LT.VT	LED	1		P3003	VJP3633B005	CONNECTOR (MALE) 5P	1	
D2001, 02	1SS254	DIODE	2		P4001	TJS118601T	CONNECTOR	1	
D2003	MA153	DIODE	1		P4002	VJP3646E006	CONNECTOR (MALE) 6P	1	
D2501	11ES1	DIODE	1		P7501	VJP3630E014	CONNECTOR (MALE) 14P	1	
D3001	1SS254	DIODE	1						
D3003	MA4056-H	DIODE	1		Q1501, 02	PN205LT-NCVT	PHOTO TRANSISTOR	2	
D6003	11ES1	DIODE	1		Q3001	2SD1996	TRANSISTOR	1	
D7402	MA4300-M	DIODE	1		Q3002	MSD601	TRANSISTOR	1	
D7501	MA4075	DIODE	1		Q3003, 04	MSB709	TRANSISTOR	2	
D7502, 03	RB441P	DIODE	2		Q3005	MSC2295	TRANSISTOR	1	
D7504	MA700	DIODE	1		Q3006	MSD601	TRANSISTOR	1	
D7509	1SS254	DIODE	1		Q3007, 08	MSC2295	TRANSISTOR	2	
D7511-13	1SS254	DIODE	3		Q3014	MSB709	TRANSISTOR	1	
D7703	RB441P	DIODE	1		Q4001	2SD602-R	TRANSISTOR	1	
					Q6001	MSB709-R	TRANSISTOR	1	
DP7501	VSL0338	DISPLAY TUBE	1		Q6004	MSB709	TRANSISTOR	1	
					Q7401	2SD1996-R	TRANSISTOR	1	
IC1501, 02	ON1387	IC	2						
IC2501	BA6871BS	IC	1		QR1001	MUN2211	TRANSISTOR-RESISTOR	1	
IC2502	AN3814K	IC	1		QR2001	MUN2213	TRANSISTOR-RESISTOR	1	
IC3001	HA118201CF	Y/C IC	1		QR3004, 05	MUN2213	TRANSISTOR-RESISTOR	2	
IC3002	MN3884S	IC	1		QR3006	UN211E	TRANSISTOR-RESISTOR	1	
IC3005	BA7654F	IC	1		QR3007	UN211D	TRANSISTOR-RESISTOR	1	
IC4001	BA7796FS	IC	1		QR3011	XN1213	TRANSISTOR-RESISTOR	1	
IC6001	M37776V1BV	IC	1		QR3012	MUN2213	TRANSISTOR-RESISTOR	1	
IC6002	BA6887-V3	IC	1		QR3014	MUN2213	TRANSISTOR-RESISTOR	1	
IC6003	PST993D	IC	1		QR3018	MUN2211	TRANSISTOR-RESISTOR	1	
IC7501	M37507V6AG	IC	1		QR3019, 20	MUN2213	TRANSISTOR-RESISTOR	2	
IC7701	D6464WVAG	IC	1		QR4003	MUN2211	TRANSISTOR-RESISTOR	1	
IC7702	BA10393F	IC	1		QR6001	XN1211	TRANSISTOR-RESISTOR	1	
					QR7501	MUN2213	TRANSISTOR-RESISTOR	1	
IR7501	PNA4601M02VT	IR RECEIVER UNIT	1		QR7701	MUN2213	TRANSISTOR-RESISTOR	1	
JK3001	VJJ0391	4-PIN JACK	1		QR7702	DTA113TKA	TRANSISTOR-RESISTOR	1	
					QR7703	MUN2113	TRANSISTOR-RESISTOR	1	
K3003	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1		QR7704	MUN2213	TRANSISTOR-RESISTOR	1	
K4005, 06	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	2						
K6001, 02	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	2		R1001	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1	
K7503	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1		R2001	ERJ6GMYG392	M. RESISTOR CH 1/10W 3.9K	1	
K7507	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1		R2002	ERJ6GMYJ105	M. RESISTOR CH 1/10W 1M	1	
K7512	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1		R2003	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1	
K7514	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1		R2005	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1	
K7516	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1		R2011	ERJ6GMYG222	M. RESISTOR CH 1/10W 2.2K	1	
					R2012-14	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	3	
L3001	VLQ0633J560	COIL 56UH	1		R2501	ERJ6GMYG681	M. RESISTOR CH 1/10W 680	1	
L3002	VLQ0633J680	COIL 68UH	1		R2502	ERJ6GMYG821	M. RESISTOR CH 1/10W 820	1	
L3003	VLQ0633J221	COIL 220UH	1		R2503, 04	ERDS2TJ560	C. RESISTOR 1/4W 56	2	
L3004, 05	VLQ0633J680	COIL 68UH	2		R2505	ERDS1TJ561	C. RESISTOR 1/2W 560	1	
L3006	VLQ0633J120	COIL 12UH	1		R2506	ERJ6GMYG432	M. RESISTOR CH 1/10W 4.3K	1	
L3007	VLQ0633J390	COIL 39UH	1		R2507	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1	
L3008, 09	VLQ0633J680	COIL 68UH	2		R2508	ERJ6GMYG473	M. RESISTOR CH 1/10W 47K	1	
L3011	VLQ0633J220	COIL 22UH	1		R2509	ERJ6GMYJ684	M. RESISTOR CH 1/10W 680K	1	
L3012	VLQ0633J101	COIL 100UH	1		R2510	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1	
L3013	VLQ0633J390	COIL 39UH	1		R2511	ERJ6GMYG133	M. RESISTOR CH 1/10W 13K	1	
L3014	VLQ0633J120	COIL 12UH	1		R2512	ERJ6GMYJ105	M. RESISTOR CH 1/10W 1M	1	
L3018	VLQ0211J100	COIL 10UH	1		R2513	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1	
L3019	VLQ0633J560	COIL 56UH	1		R2514	ERDS2TJ560	C. RESISTOR 1/4W 56	1	
L3020	VLQ0633J331	COIL 330UH	1		R2515	ERX12SJR47	M. RESISTOR 1/2W 0.47	1	
L3021	VLQ0633J560	COIL 56UH	1		R2516	ERDS2TJ330	C. RESISTOR 1/4W 33	1	
L4001	ELESN471KA	COIL 470UH	1		R2517	ERDS2FJ1R5	C. RESISTOR 1/4W 1.5	1	
L7404, 05	VLQ0633J101	COIL 100UH	2		R2518, 19	ERDS2TJ330	C. RESISTOR 1/4W 33	2	
L7701	VLQ0633J1R5	COIL 1.5UH	1		R2520	ERDS2FJ1R2	C. RESISTOR 1/4W 1.2	1	
L7702	VLQ0633J330	COIL 33UH	1		R2521	ERDS2TJ391	C. RESISTOR 1/4W 390	1	
L7704	VLQ0633J680	COIL 68UH	1		R3001	ERJ6GMYG561	M. RESISTOR CH 1/10W 560	1	
					R3006, 07	ERJ6GMYG681	M. RESISTOR CH 1/10W 680	2	
LB3001	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1		R3008	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1	
LB3002	VLP0145	COIL	1		R3009, 10	ERJ6GMYG750	M. RESISTOR CH 1/10W 75	2	
					R3011	ERJ6GMYG122	M. RESISTOR CH 1/10W 1.2K	1	
					R3012	ERJ6GMYG681	M. RESISTOR CH 1/10W 680	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R3014	ERJ6GMYG682	M. RESISTOR CH 1/10W 6.8K	1		R6030	ERJ6GMYG473	M. RESISTOR CH 1/10W 47K	1	
R3015	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1		R6034	ERJ6GMYG273	M. RESISTOR CH 1/10W 27K	1	
R3016	ERJ6GMYG272	M. RESISTOR CH 1/10W 2.7K	1		R6035	ERJ6GMYG333	M. RESISTOR CH 1/10W 33K	1	
R3017	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1		R6036	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1	
R3018	ERJ6GMYG822	M. RESISTOR CH 1/10W 8.2K	1		R6037	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R3019	ERJ6GMYG682	M. RESISTOR CH 1/10W 6.8K	1		R6038, 39	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	2	
R3020	ERJ6GMYG152	M. RESISTOR CH 1/10W 1.5K	1		R6040	ERJ6GMYG333	M. RESISTOR CH 1/10W 33K	1	
R3022	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1		R6041	ERJ6GMYG273	M. RESISTOR CH 1/10W 27K	1	
R3024	ERJ6GMYG562	M. RESISTOR CH 1/10W 5.6K	1		R6042	ERJ6GMYG183	M. RESISTOR CH 1/10W 18K	1	
R3025	ERJ6GMYG821	M. RESISTOR CH 1/10W 820	1		R6044, 45	ERJ6GMYG223	M. RESISTOR CH 1/10W 22K	2	
R3026	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1		R6046	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1	
R3027	ERJ6GMYG473	M. RESISTOR CH 1/10W 47K	1		R6047	ERJ6GMYG272	M. RESISTOR CH 1/10W 2.7K	1	
R3028	ERJ6GMYG272	M. RESISTOR CH 1/10W 2.7K	1		R6048	ERJ6GMYG201	M. RESISTOR CH 1/10W 200	1	
R3029	ERJ6GMYG123	M. RESISTOR CH 1/10W 12K	1		R6050	ERDS2TJ271	C. RESISTOR 1/4W 270	1	
R3030	ERJ6GMYG273	M. RESISTOR CH 1/10W 27K	1		R6051, 52	ERJ6GMYJ683	M. RESISTOR CH 1/10W 68K	2	
R3031, 32	ERJ6GMYG473	M. RESISTOR CH 1/10W 47K	2		R6054	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
R3033	ERJ6GMYG332	M. RESISTOR CH 1/10W 3.3K	1		R6055, 56	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	2	
R3034	ERJ6GMYJ391	M. RESISTOR CH 1/10W 390	1		R6057	ERJ6GMYG222	M. RESISTOR CH 1/10W 2.2K	1	
R3036	ERJ6GMYG122	M. RESISTOR CH 1/10W 1.2K	1		R6058	ERJ6GMYG512	M. RESISTOR CH 1/10W 5.1K	1	
R3037	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1		R6059, 60	ERJ6GMYG392	M. RESISTOR CH 1/10W 3.9K	2	
R3038	ERJ6GMYG821	M. RESISTOR CH 1/10W 820	1		R6061-63	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	3	
R3039	ERJ6GMYG562	M. RESISTOR CH 1/10W 5.6K	1		R6064	ERJ6RBD751	M. RESISTOR CH 1/10W 750	1	
R3040	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1		R6065	ERJ6RHD6980	M. RESISTOR CH 1/10W	1	
R3041	ERDS2TJ471	C. RESISTOR 1/4W 470	1		R6066	ERJ6GMYG122	M. RESISTOR CH 1/10W 1.2K	1	
R3042	ERJ6GMYG471	M. RESISTOR CH 1/10W 470	1		R7401	ERDS2TJ152	C. RESISTOR 1/4W 1.5K	1	
R3044	ERJ6GMYG821	M. RESISTOR CH 1/10W 820	1		R7402, 03	ERJ6GMYG561	M. RESISTOR CH 1/10W 560	2	
R3045	ERJ6GMYG561	M. RESISTOR CH 1/10W 560	1		R7405	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1	
R3046	ERJ6GMYG152	M. RESISTOR CH 1/10W 1.5K	1		R7407	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1	
R3059	ERJ6GMYG183	M. RESISTOR CH 1/10W 18K	1		R7501	ERJ6GMYG104	M. RESISTOR CH 1/10W 100K	1	
R3062	ERJ6GMYG182	M. RESISTOR CH 1/10W 1.8K	1		R7502	ERJ6GMYG101	M. RESISTOR CH 1/10W 100	1	
R3064	ERJ6GMYJ474	M. RESISTOR CH 1/10W 470K	1		R7503	ERJ6GMYG331	M. RESISTOR CH 1/10W 330	1	
R3066	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1		R7504	ERJ6GMYG334	M. RESISTOR CH 1/10W 330K	1	
R3067	ERJ6GMYG272	M. RESISTOR CH 1/10W 2.7K	1		R7508	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1	
R3068	ERJ6GMYG562	M. RESISTOR CH 1/10W 5.6K	1		R7510	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
R3069	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1		R7514, 15	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	2	
R3079	ERJ6GMYJ225	M. RESISTOR CH 1/10W 2.2K	1		R7523	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
R3080	ERJ6GEYJ395	M. RESISTOR CH 1/10W 3.9K	1		R7532	ERJ6GMYG153	M. RESISTOR CH 1/10W 15K	1	
R3082	ERJ6GMYG114	M. RESISTOR CH 1/10W 110K	1		R7533, 34	ERJ6GMYG332	M. RESISTOR CH 1/10W 3.3K	2	
R3085	ERJ6GMYG101	M. RESISTOR CH 1/10W 100	1		R7536	ERJ6GMYG563	M. RESISTOR CH 1/10W 56K	1	
R3088	ERJ6GMYJ124	M. RESISTOR CH 1/10W 120K	1		R7702	ERJ6GMYG122	M. RESISTOR CH 1/10W 1.2K	1	
R3089	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1		R7703	ERJ6GMYG222	M. RESISTOR CH 1/10W 2.2K	1	
R3090	ERJ6GMYG473	M. RESISTOR CH 1/10W 47K	1		R7706	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1	
R3091	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1		R7708	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1	
R3093	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1		R7710	ERJ6GMYG562	M. RESISTOR CH 1/10W 5.6K	1	
R4001	ERJ6GMYG472	M. RESISTOR CH 1/10W 4.7K	1		R7711	ERJ6GMYG104	M. RESISTOR CH 1/10W 100K	1	
R4002	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1		R7712	ERJ6GMYG682	M. RESISTOR CH 1/10W 6.8K	1	
R4003	ERJ6GMYJ105	M. RESISTOR CH 1/10W 1M	1		R7714	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R4004	ERJ6GMYG331	M. RESISTOR CH 1/10W 330	1		R7716	ERJ6GMYG302	M. RESISTOR CH 1/10W 3K	1	
R4005	ERJ6GMYG334	M. RESISTOR CH 1/10W 330K	1		R7717	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1	
R4006	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1						
R4007	ERJ6GMYJ113	M. RESISTOR CH 1/10W 11K	1		S1501	VES0709	SWITCH	1	
R4008	ERJ6GMYG222	M. RESISTOR CH 1/10W 2.2K	1		S7401	VSS0398	SWITCH	1	
R4010	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1		S7503	EVQ11409K	SWITCH	1	
R4011	ERJ6GMYG393	M. RESISTOR CH 1/10W 39K	1		S7505-07	EVQ11607K	SWITCH	3	
R4012	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1		S7508	EVQ11409K	SWITCH	1	
R4013	ERJ6GMYG123	M. RESISTOR CH 1/10W 12K	1						
R4014	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1		T4001	EQQ7QF024Q	TRANSFORMER	1	
R4015	ERJ6GMYG472	M. RESISTOR CH 1/10W 4.7K	1						
R4016	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1		X3001	VXS0803	CRYSTAL OSCILLATOR	1	
R4017	ERJ6GMYG332	M. RESISTOR CH 1/10W 3.3K	1		X3002	VXS0822	CRYSTAL OSCILLATOR	1	
R4018	ERJ6GMYG100	M. RESISTOR CH 1/10W 10	1		X6001	VXS0583	CRYSTAL OSCILLATOR	1	
R4020	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1		X7501	VXS0673	CRYSTAL OSCILLATOR	1	
R4023	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1		X7502	VXS0666	CRYSTAL OSCILLATOR	1	
R4024, 25	ERJ6GMYG682	M. RESISTOR CH 1/10W 6.8K	2		X7701	VXS0815	CRYSTAL OSCILLATOR	1	
R4026, 27	ERJ6GMYG473	M. RESISTOR CH 1/10W 47K	2						
R4028	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1		ZB1501, 02	VMD2329	PHOTO TRANSISTOR HOLDER	2	
R4037	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1		ZB1503	VMD2330	LED HOLDER	1	
R6001	ERX1SJ1R8	M. RESISTOR 1W 1.8	1		ZB1504	VMD2328	REEL GUIDE	1	
R6002	ERJ6GMYG913	M. RESISTOR CH 1/10W 91K	1		ZB7001	VXQ0424	FIP HOLDER	1	
R6009	ERJ6GMYG332	M. RESISTOR CH 1/10W 3.3K	1						
R6016	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1						
R6017	ERJ6GMYJ105	M. RESISTOR CH 1/10W 1M	1		△	ENG56416G	MISCELLANEOUS TUNER	1	
R6023, 24	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	2						
R6025, 26	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	2						
R6027, 28	ERJ6GMYG272	M. RESISTOR CH 1/10W 2.7K	2		■	VEP06B35Q	MAIN C.B.A.	(RTL)	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
				NV-SD460BR					
B7501	CR2354-16UF	BATTERY	1		G3024	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	1	
C801	ECEA1CKA100	E. CAPACITOR 16V 10U	1		G3025	ECA0JM471	E. CAPACITOR 6.3V 470U	1	
C802	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		G3026, 27	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	2	
C806	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		G3028	ECEA1EKA4R7	E. CAPACITOR 25V 4.7U	1	
C807	ECQV1H563JM	P. CAPACITOR 50V 0.056U	1		G3029	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C808	ECEA0JKA330	E. CAPACITOR 6.3V 33U	1		G3030	ECUM1E333KBN	C. CAPACITOR CH 25V 0.033U	1	
C809	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		G3031	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C810	ECEA1HKAR47	E. CAPACITOR 50V 0.47U	1		G3036	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C811	ECUM1H151JCN	C. CAPACITOR CH 50V 150P	1		G3037	ECUM1H330JCN	C. CAPACITOR CH 50V 33P	1	
C812	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		G3038	ECEA1EKA4R7	E. CAPACITOR 25V 4.7U	1	
C813	ECUM1H070DCN	C. CAPACITOR CH 50V 7P	1		G3039	ECUM1H271JCN	C. CAPACITOR CH 50V 270P	1	
C814-16	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	3		G3040	ECUM1H270JCN	C. CAPACITOR CH 50V 27P	1	
C817	ECEA0JKA101	E. CAPACITOR 6.3V 100U	1		G3041	ECA0JM471	E. CAPACITOR 6.3V 470U	1	
C819	ECEA0JKA101	E. CAPACITOR 6.3V 100U	1		G3042, 43	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	2	
C820	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		G3044	ECUM1H223KBN	C. CAPACITOR CH 50V 0.022U	1	
C823	ECQB1H222JF	P. CAPACITOR 50V 2200P	1		G3045	ECEA1HKAR47	E. CAPACITOR 50V 0.47U	1	
C824	ECQB1H122JF	P. CAPACITOR 50V 1200P	1		G3046, 47	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	2	
C825	ECEA0JKA470	E. CAPACITOR 6.3V 47U	1		G3048	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
C826	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		G3049	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C835	ECUM1H390JCN	C. CAPACITOR CH 50V 39P	1		G3050	ECA0JM471	E. CAPACITOR 6.3V 470U	1	
C836	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		G3051	ECEA1HKAR22	E. CAPACITOR 50V 0.22U	1	
G2001	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1		G3052	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
G2002	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1		G3053	ECEA1HKAR47	E. CAPACITOR 50V 0.47U	1	
G2003	ECEA1HKNR47	E. CAPACITOR 50V 0.47U	1		G3054	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
G2005	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	1		G3055	ECEA1EKA4R7	E. CAPACITOR 25V 4.7U	1	
G2008	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1		G3056	ECEA1HKA3R3	E. CAPACITOR 50V 3.3U	1	
G2009	ECUM1H392KBN	C. CAPACITOR CH 50V 3900P	1		G3057	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
G2011	ECUM1H472KBN	C. CAPACITOR CH 50V 4700P	1		G3058	ECEA1HKAR47	E. CAPACITOR 50V 0.47U	1	
G2012	ECEA1EKA4R7	E. CAPACITOR 25V 4.7U	1		G3059	ECEA1HKA3R3	E. CAPACITOR 50V 3.3U	1	
G2013	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1		G3060	ECUM1H121JCN	C. CAPACITOR CH 50V 120P	1	
G2014	ECEA0JKA221	E. CAPACITOR 6.3V 220U	1		G3061	ECUM1E473KBN	C. CAPACITOR CH 25V 0.047U	1	
G2015	ECEA1CKA100	E. CAPACITOR 16V 10U	1		G3062	ECEA0JKA470	E. CAPACITOR 6.3V 47U	1	
G2016	ECEA0JKA221	E. CAPACITOR 6.3V 220U	1		G3063	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
G2017	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1		G3065	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
G2018	ECQV1H563B46	P. CAPACITOR 50V 0.056U	1		G3066	ECUM1H220JCN	C. CAPACITOR CH 50V 22P	1	
G2019	ECUM1H563ZFN	C. CAPACITOR CH 50V 0.056U	1		G3067	ECUM1H180JCN	C. CAPACITOR CH 50V 18P	1	
G2501	ECEA1HKA2R2	E. CAPACITOR 50V 2.2U	1		G3068	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
G2502	ECEA1CKA470	E. CAPACITOR 16V 47U	1		G3069	ECUM1H681JCN	C. CAPACITOR CH 50V 680P	1	
G2503	ECEA1HKA2R2	E. CAPACITOR 50V 2.2U	1		G3070	ECUM1H101JCN	C. CAPACITOR CH 50V 100P	1	
G2504	ECEA1HKNR22	E. CAPACITOR 50V 0.22U	1		G3071	ECUM1H680JCN	C. CAPACITOR CH 50V 68P	1	
G2505	ECEA1HKA010	E. CAPACITOR 50V 1U	1		G3079	ECEA0JKA470	E. CAPACITOR 6.3V 47U	1	
G2506, 07	ECUM1E333KBN	C. CAPACITOR CH 25V 0.033U	2		G3080	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
G2508	ECUM1H103KBN	C. CAPACITOR CH 50V 0.01U	1		G3081	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
G2510	ECQV1H563B46	P. CAPACITOR 50V 0.056U	1		G3096	ECEA1HKA010	E. CAPACITOR 50V 1U	1	
G2511	ECUM1H563ZFN	C. CAPACITOR CH 50V 0.056U	1		G3105	ECUM1H181JCN	C. CAPACITOR CH 50V 180P	1	
G2512-14	ECUM1E333KBN	C. CAPACITOR CH 25V 0.033U	3		G3106-08	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	3	
G2515	ECEA1HKA2R2	E. CAPACITOR 50V 2.2U	1		G3109	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	1	
G2517-19	ECEA1VKN4R7	E. CAPACITOR 35V 4.7U	3		G3110	ECEA0JKA221	E. CAPACITOR 6.3V 220U	1	
G2520	ECUM1H473ZFN	C. CAPACITOR CH 50V 0.047U	1		G3111	ECUM1H181JCN	C. CAPACITOR CH 50V 180P	1	
G2521	ECEA0JKA101	E. CAPACITOR 6.3V 100U	1		G3114, 15	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	2	
G2522	ECQV1H683JM	P. CAPACITOR 50V 0.068U	1		G4001	ECEA1AKA220	E. CAPACITOR 10V 22U	1	
G2523-25	ECEA1HKA0R1	E. CAPACITOR 50V 0.1U	3		G4002	ECUM1H392KBN	C. CAPACITOR CH 50V 3900P	1	
G2526	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1		G4003	ECEA0JKA101	E. CAPACITOR 6.3V 100U	1	
G3003	ECUM1H103KBN	C. CAPACITOR CH 50V 0.01U	1		G4004	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
G3004	ECUM1H070DCN	C. CAPACITOR CH 50V 7P	1		G4005-07	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	3	
G3005	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		G4008	ECUM1H103KBN	C. CAPACITOR CH 50V 0.01U	1	
G3006	ECUM1H221JCN	C. CAPACITOR CH 50V 220P	1		G4009	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
G3007	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1		G4010	ECUM1H332KBN	C. CAPACITOR CH 50V 3300P	1	
G3008	ECEA0JKA470	E. CAPACITOR 6.3V 47U	1		G4011	ECUM1H182KBN	C. CAPACITOR CH 50V 1800P	1	
G3009	ECUM1H070DCN	C. CAPACITOR CH 50V 7P	1		G4012	ECEA1HKA010	E. CAPACITOR 50V 1U	1	
G3010, 11	ECUM1H560JCN	C. CAPACITOR CH 50V 56P	2		G4013	ECUM1H103KBN	C. CAPACITOR CH 50V 0.01U	1	
G3012	ECEA0JKA470	E. CAPACITOR 6.3V 47U	1		G4014	ECUM1H122KBN	C. CAPACITOR CH 50V 1200P	1	
G3013	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		G4015	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
G3014	ECEA1HKA3R3	E. CAPACITOR 50V 3.3U	1		G4016	ECEA1CKA220	E. CAPACITOR 16V 22U	1	
G3015	ECUM1H181JCN	C. CAPACITOR CH 50V 180P	1		G4017	ECQF1H221JC	C. CAPACITOR 50V 220P	1	
G3016	ECUM1H330JCN	C. CAPACITOR CH 50V 33P	1		G4018	ECQB1H223JF	P. CAPACITOR 50V 0.022U	1	
G3017	ECUM1H220JCN	C. CAPACITOR CH 50V 22P	1		G4019	ECA1CM470	E. CAPACITOR 16V 47U	1	
G3018	ECEA1HKAR47	E. CAPACITOR 50V 0.47U	1		G4020	ECUM1H223KBN	C. CAPACITOR CH 50V 0.022U	1	
G3020	ECEA1HKAR22	E. CAPACITOR 50V 0.22U	1		G4021	ECUM1H152KBN	C. CAPACITOR CH 50V 1500P	1	
G3021	ECUM1H151JCN	C. CAPACITOR CH 50V 150P	1		G4025	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
G3022	ECEA1HKA010	E. CAPACITOR 50V 1U	1		G4026	ECEA1EKA4R7	E. CAPACITOR 25V 4.7U	1	
G3023	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		G4520	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1	
					G6002	ECEA1CKA470	E. CAPACITOR 16V 47U	1	
					G6003	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
					G6005	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C6006	ECEAOJKA470	E. CAPACITOR 6.3V 47U	1		K7514	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
C6007, 08	ECUM1H180JCN	C. CAPACITOR CH 50V 18P	2		K7516	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
C6010	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1		K7702	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
C6014	ECEATHKA100	E. CAPACITOR 50V 10U	1		L801	VLQ0633J680	COIL 68UH	1	
C6018	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1		L803	VLQ0633J680	COIL 68UH	1	
C6019	ECUM1C224ZFN	C. CAPACITOR CH 16V 0.22U	1		L804	VLQ0633J680	COIL 680UH	1	
C6020	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		L805	VLQ0633J680	COIL 68UH	1	
C7401	ECEATHKA010	E. CAPACITOR 50V 1U	1		L3001	VLQ0633J560	COIL 56UH	1	
C7403	ECA1CM471	E. CAPACITOR 16V 470U	1		L3002	VLQ0633J680	COIL 68UH	1	
C7404	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		L3003	VLQ0633J221	COIL 220UH	1	
C7406	ECEAOJKA101	E. CAPACITOR 6.3V 100U	1		L3004, 05	VLQ0633J680	COIL 68UH	2	
C7407	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		L3006	VLQ0633J120	COIL 12UH	1	
C7501	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1		L3007	VLQ0633J390	COIL 39UH	1	
C7502	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		L3008, 09	VLQ0633J680	COIL 68UH	2	
C7503, 04	ECUM1H270JCN	C. CAPACITOR CH 50V 27P	2		L3011	VLQ0633J220	COIL 22UH	1	
C7505	ECUM1H100DCN	C. CAPACITOR CH 50V 10P	1		L3012	VLQ0633J101	COIL 100UH	1	
C7506	ECUM1H390JCN	C. CAPACITOR CH 50V 39P	1		L3013	VLQ0633J390	COIL 39UH	1	
C7507	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1		L3014	VLQ0633J120	COIL 12UH	1	
C7508	ECEAOJKA331	E. CAPACITOR 6.3V 330U	1		L3018	VLQ0211J100	COIL 10UH	1	
C7510	ECUM1H391JCN	C. CAPACITOR CH 50V 390P	1		L3019	VLQ0633J560	COIL 56UH	1	
C7511	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1		L3020	VLQ0633J331	COIL 330UH	1	
C7702	ECEAOJKA470	E. CAPACITOR 6.3V 47U	1		L3021	VLQ0633J560	COIL 56UH	1	
C7703	ECUM1H300JCN	C. CAPACITOR CH 50V 30P	1		L4001	ELESN471KA	COIL 470UH	1	
C7704	ECUM1H100DCN	C. CAPACITOR CH 50V 10P	1		L7404, 05	VLQ0633J101	COIL 100UH	2	
C7705	ECEATHKA2R2	E. CAPACITOR 50V 2.2U	1		L7701	VLQ0633J1R5	COIL 1.5UH	1	
C7706	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		L7702	VLQ0633J330	COIL 33UH	1	
C7708	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		L7704	VLQ0633J680	COIL 68UH	1	
C7709	ECUM1H150JCN	C. CAPACITOR CH 50V 15P	1		LB3001	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
C7710	ECUM1H120JCN	C. CAPACITOR CH 50V 12P	1		LB3002	VLP0145	COIL	1	
C7711	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		P1001	VJS3631A011A	CONNECTOR (FEMALE) 11P	1	
C7712	ECAOJM331	E. CAPACITOR 6.3V 330U	1		P1501	VJS3821	CONNECTOR (FEMALE) 4P	1	
D1501	LN59LT-VT	LED	1		P1502	VJS3640A002	CONNECTOR (FEMALE) 2P	1	
D2001, 02	1SS254	DIODE	2		P2003	VJS3537A009G	CONNECTOR (FEMALE) 9P	1	
D2003	MA153	DIODE	1		P2501	VJS3537A015G	CONNECTOR (FEMALE) 15P	1	
D2501	11ES1	DIODE	1		P2502	VJP3502	CONNECTOR (MALE)	1	
D3001	1SS254	DIODE	1		P3001	VJP3649E016W	CONNECTOR (MALE) 16P	1	
D3003	MA4056-H	DIODE	1		P3003	VJP3633B005	CONNECTOR (MALE) 5P	1	
D6003	11ES1	DIODE	1		P4001	TJS118601T	CONNECTOR	1	
D7402	MA4300-M	DIODE	1		P4002	VJP3646E006	CONNECTOR (MALE) 6P	1	
D7501	MA4075	DIODE	1		P7501	VJP3630E014	CONNECTOR (MALE) 14P	1	
D7502, 03	RB441P	DIODE	2		PK801	VJR0777B007W	CONNECTOR (MALE) 7P	1	
D7504	MA700	DIODE	1		PK802	VJR0777B008W	CONNECTOR (MALE) 8P	1	
D7509	1SS254	DIODE	1		Q801, 02	MSC2295	TRANSISTOR	2	
D7511-13	1SS254	DIODE	3		Q805	MSC2295	TRANSISTOR	1	
D7703	RB441P	DIODE	1		Q806	MSD601	TRANSISTOR	1	
DP7501	VSL0338	DISPLAY TUBE	1		Q807	MSB709	TRANSISTOR	1	
IC801	M52379FP	IC	1		Q808	MSC2295	TRANSISTOR	1	
IC1501, 02	ON1387	IC	2		Q809	2SA1022	TRANSISTOR	1	
IC2501	BA6871BS	IC	1		Q1501, 02	PN205LT-NGVT	PHOTO TRANSISTOR	2	
IC2502	AN3814K	IC	1		Q3001	2SD1996	TRANSISTOR	1	
IC3001	HA118201CF	Y/C IC	1		Q3002	MSD601	TRANSISTOR	1	
IC3002	MN3884S	IC	1		Q3003, 04	MSB709	TRANSISTOR	2	
IC3005	BA7654F	IC	1		Q3005	MSC2295	TRANSISTOR	1	
IC4001	BA7796FS	IC	1		Q3006	MSD601	TRANSISTOR	1	
IC6001	M37776V1BV	IC	1		Q3007, 08	MSC2295	TRANSISTOR	2	
IC6002	BA6887-V3	IC	1		Q3014	MSB709	TRANSISTOR	1	
IC6003	PST993D	IC	1		Q4001	2SD602-R	TRANSISTOR	1	
IC7501	M37507V6AG	IC	1		Q6001	MSB709-R	TRANSISTOR	1	
IC7701	D6464WVAG	IC	1		Q6004	MSB709	TRANSISTOR	1	
IC7702	BA10393F	IC	1		Q7401	2SD1996-R	TRANSISTOR	1	
IR7501	PNA4601M02VT	IR RECEIVER UNIT	1		QR801	MA151K	DIODE	1	
JK3001	VJJ0391	4-PIN JACK	1		QR802	MUN2213	TRANSISTOR-RESISTOR	1	
K3012	ERDS2TJ104	C. RESISTOR 1/4W 100K	1		QR805	MUN2113	TRANSISTOR-RESISTOR	1	
K3013	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1		QR806-08	MUN2213	TRANSISTOR-RESISTOR	3	
K4005, 06	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	2		QR809	MUN2113	TRANSISTOR-RESISTOR	1	
K6001, 02	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	2		QR1001	MUN2211	TRANSISTOR-RESISTOR	1	
K7503	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1		QR2001	MUN2213	TRANSISTOR-RESISTOR	1	
K7507	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1		QR3004, 05	MUN2213	TRANSISTOR-RESISTOR	2	
K7512	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1		QR3006	UN211E	TRANSISTOR-RESISTOR	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
QR3007	UN211D	TRANSISTOR-RESISTOR	1		R3025	ERJ66MYG821	M. RESISTOR CH 1/10W 820	1	
QR3009	MUN2213	TRANSISTOR-RESISTOR	1		R3026	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	1	
QR3014	MUN2213	TRANSISTOR-RESISTOR	1		R3028	ERJ66MYG272	M. RESISTOR CH 1/10W 2.7K	1	
QR3018	MUN2211	TRANSISTOR-RESISTOR	1		R3029	ERJ66MYG123	M. RESISTOR CH 1/10W 12K	1	
QR3019, 20	MUN2213	TRANSISTOR-RESISTOR	2		R3030	ERJ66MYG273	M. RESISTOR CH 1/10W 27K	1	
QR4003	MUN2211	TRANSISTOR-RESISTOR	1		R3031, 32	ERJ66MYG473	M. RESISTOR CH 1/10W 47K	2	
QR6001	XN1211	TRANSISTOR-RESISTOR	1		R3033	ERJ66MYG332	M. RESISTOR CH 1/10W 3.3K	1	
QR7501	MUN2213	TRANSISTOR-RESISTOR	1		R3034	ERJ66MYJ391	M. RESISTOR CH 1/10W 390	1	
QR7702	DTA113TKA	TRANSISTOR-RESISTOR	1		R3036	ERJ66MYG122	M. RESISTOR CH 1/10W 1.2K	1	
QR7703	MUN2113	TRANSISTOR-RESISTOR	1		R3037	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	1	
QR7704	MUN2213	TRANSISTOR-RESISTOR	1		R3038	ERJ66MYG821	M. RESISTOR CH 1/10W 820	1	
					R3039	ERJ66MYG562	M. RESISTOR CH 1/10W 5.6K	1	
R801	ERJ66MYG154	M. RESISTOR CH 1/10W 150K	1		R3040	ERJ66MYJ221	M. RESISTOR CH 1/10W 220	1	
R802	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	1		R3041	ERDS2TJ471	C. RESISTOR 1/4W 470	1	
R803, 04	ERJ66MYG473	M. RESISTOR CH 1/10W 47K	2		R3042	ERJ66MYG471	M. RESISTOR CH 1/10W 470	1	
R805	ERJ66MYG392	M. RESISTOR CH 1/10W 3.9K	1		R3044	ERJ66MYG821	M. RESISTOR CH 1/10W 820	1	
R806	ERJ66MYG202	M. RESISTOR CH 1/10W 2K	1		R3045	ERJ66MYG561	M. RESISTOR CH 1/10W 560	1	
R810	ERJ66MYG562	M. RESISTOR CH 1/10W 5.6K	1		R3046	ERJ66MYG152	M. RESISTOR CH 1/10W 1.5K	1	
R811	ERJ66MYG681	M. RESISTOR CH 1/10W 680	1		R3059	ERJ66MYG183	M. RESISTOR CH 1/10W 18K	1	
R812, 13	ERJ66MYG471	M. RESISTOR CH 1/10W 470	2		R3062	ERJ66MYG182	M. RESISTOR CH 1/10W 1.8K	1	
R815	ERJ66MYG332	M. RESISTOR CH 1/10W 3.3K	1		R3064	ERJ66MYJ474	M. RESISTOR CH 1/10W 470K	1	
R816	ERJ66MZOR00	M. RESISTOR CH 1/10W 0	1		R3066	ERJ66MYG102	M. RESISTOR CH 1/10W 1K	1	
R818	ERJ66MYG222	M. RESISTOR CH 1/10W 2.2K	1		R3067	ERJ66MYG272	M. RESISTOR CH 1/10W 2.7K	1	
R819	ERJ66MYG681	M. RESISTOR CH 1/10W 680	1		R3068	ERJ66MYG562	M. RESISTOR CH 1/10W 5.6K	1	
R820, 21	ERJ66MYG472	M. RESISTOR CH 1/10W 4.7K	2		R3069	ERJ66MZOR00	M. RESISTOR CH 1/10W 0	1	
R822	ERJ66MYG102	M. RESISTOR CH 1/10W 1K	1		R3079	ERJ66MYJ225	M. RESISTOR CH 1/10W 2.2M	1	
R823, 24	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	2		R3080	ERJ66EYJ395	M. RESISTOR CH 1/10W 3.9M	1	
R825	ERJ66MYJ223	M. RESISTOR CH 1/10W 22K	1		R3082	ERJ66MYG114	M. RESISTOR CH 1/10W 110K	1	
R827, 28	ERJ66MYG473	M. RESISTOR CH 1/10W 47K	2		R3085	ERJ66MYG101	M. RESISTOR CH 1/10W 100	1	
R829	ERJ66MYJ223	M. RESISTOR CH 1/10W 22K	1		R3088	ERJ66MYJ124	M. RESISTOR CH 1/10W 120K	1	
R830	ERJ66MYG681	M. RESISTOR CH 1/10W 680	1		R3089	ERJ66MZOR00	M. RESISTOR CH 1/10W 0	1	
R831, 32	ERJ66MYG102	M. RESISTOR CH 1/10W 1K	2		R3090	ERJ66MYG473	M. RESISTOR CH 1/10W 47K	1	
R833	ERJ66MYG122	M. RESISTOR CH 1/10W 1.2K	1		R3091	ERJ66MYG102	M. RESISTOR CH 1/10W 1K	1	
R834	ERJ66MYG123	M. RESISTOR CH 1/10W 12K	1		R3093	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	1	
R1001	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	1		R4001	ERJ66MYG472	M. RESISTOR CH 1/10W 4.7K	1	
R2001	ERJ66MYG392	M. RESISTOR CH 1/10W 3.9K	1		R4002	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	1	
R2002	ERJ66MYJ105	M. RESISTOR CH 1/10W 1M	1		R4003	ERJ66MYJ105	M. RESISTOR CH 1/10W 1M	1	
R2003	ERJ66MYG102	M. RESISTOR CH 1/10W 1K	1		R4004	ERJ66MYG331	M. RESISTOR CH 1/10W 330	1	
R2005	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	1		R4005	ERJ66MYG334	M. RESISTOR CH 1/10W 330K	1	
R2011	ERJ66MYG222	M. RESISTOR CH 1/10W 2.2K	1		R4006	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	1	
R2012-14	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	3		R4007	ERJ66MYJ113	M. RESISTOR CH 1/10W 11K	1	
R2501	ERJ66MYG681	M. RESISTOR CH 1/10W 680	1		R4008	ERJ66MYG222	M. RESISTOR CH 1/10W 2.2K	1	
R2502	ERJ66MYG821	M. RESISTOR CH 1/10W 820	1		R4010	ERJ66MYJ223	M. RESISTOR CH 1/10W 22K	1	
R2503, 04	ERDS2TJ560	C. RESISTOR 1/4W 56	2		R4011	ERJ66MYG393	M. RESISTOR CH 1/10W 39K	1	
R2505	ERDS1TJ561	C. RESISTOR 1/2W 560	1		R4012	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	1	
R2506	ERJ66MYG432	M. RESISTOR CH 1/10W 4.3K	1		R4013	ERJ66MYG123	M. RESISTOR CH 1/10W 12K	1	
R2507	ERJ66MYG102	M. RESISTOR CH 1/10W 1K	1		R4014	ERJ66MYG102	M. RESISTOR CH 1/10W 1K	1	
R2508	ERJ66MYG473	M. RESISTOR CH 1/10W 47K	1		R4015	ERJ66MYG472	M. RESISTOR CH 1/10W 4.7K	1	
R2509	ERJ66MYJ684	M. RESISTOR CH 1/10W 680K	1		R4016	ERJ66MYG102	M. RESISTOR CH 1/10W 1K	1	
R2510	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	1		R4017	ERJ66MYG332	M. RESISTOR CH 1/10W 3.3K	1	
R2511	ERJ66MYG133	M. RESISTOR CH 1/10W 13K	1		R4018	ERJ66MYG100	M. RESISTOR CH 1/10W 10	1	
R2512	ERJ66MYJ105	M. RESISTOR CH 1/10W 1M	1		R4020	ERJ66MZOR00	M. RESISTOR CH 1/10W 0	1	
R2513	ERJ66MYG102	M. RESISTOR CH 1/10W 1K	1		R4023	ERJ66MYJ223	M. RESISTOR CH 1/10W 22K	1	
R2514	ERDS2TJ560	C. RESISTOR 1/4W 56	1		R4024, 25	ERJ66MYG682	M. RESISTOR CH 1/10W 6.8K	2	
R2515	ERX12SJ47	M. RESISTOR 1/2W 0.47	1		R4026, 27	ERJ66MYG473	M. RESISTOR CH 1/10W 47K	2	
R2516	ERDS2TJ330	C. RESISTOR 1/4W 33	1		R4028	ERJ66MYJ223	M. RESISTOR CH 1/10W 22K	1	
R2517	ERDS2FJ1R5	C. RESISTOR 1/4W 1.5	1		R4037	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	1	
R2518, 19	ERDS2TJ330	C. RESISTOR 1/4W 33	2		R6001	ERX1SJ1R8	M. RESISTOR 1W 1.8	1	
R2520	ERDS2FJ1R2	C. RESISTOR 1/4W 1.2	1		R6002	ERJ66MYG913	M. RESISTOR CH 1/10W 91K	1	
R2521	ERDS2TJ391	C. RESISTOR 1/4W 390	1		R6009	ERJ66MYG332	M. RESISTOR CH 1/10W 3.3K	1	
R3001	ERJ66MYG561	M. RESISTOR CH 1/10W 560	1		R6016	ERJ66MYG102	M. RESISTOR CH 1/10W 1K	1	
R3006, 07	ERJ66MYG681	M. RESISTOR CH 1/10W 680	2		R6017	ERJ66MYJ105	M. RESISTOR CH 1/10W 1M	1	
R3008	ERJ66MYG102	M. RESISTOR CH 1/10W 1K	1		R6023, 24	ERJ66MYJ221	M. RESISTOR CH 1/10W 220	2	
R3009, 10	ERJ66MYG750	M. RESISTOR CH 1/10W 75	2		R6025, 26	ERJ66MYJ223	M. RESISTOR CH 1/10W 22K	2	
R3011	ERJ66MYG122	M. RESISTOR CH 1/10W 1.2K	1		R6027, 28	ERJ66MYG272	M. RESISTOR CH 1/10W 2.7K	2	
R3012	ERJ66MYG681	M. RESISTOR CH 1/10W 680	1		R6030	ERJ66MYG473	M. RESISTOR CH 1/10W 47K	1	
R3014	ERJ66MYG682	M. RESISTOR CH 1/10W 6.8K	1		R6032	ERJ66MZOR00	M. RESISTOR CH 1/10W 0	1	
R3015	ERJ66MYG102	M. RESISTOR CH 1/10W 1K	1		R6034, 35	ERJ66MZOR00	M. RESISTOR CH 1/10W 0	2	
R3016	ERJ66MYG272	M. RESISTOR CH 1/10W 2.7K	1		R6036	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	1	
R3017	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	1		R6037	ERJ66MYJ223	M. RESISTOR CH 1/10W 22K	1	
R3018	ERJ66MYG822	M. RESISTOR CH 1/10W 8.2K	1		R6039	ERJ66MZOR00	M. RESISTOR CH 1/10W 0	1	
R3019	ERJ66MYG682	M. RESISTOR CH 1/10W 6.8K	1		R6042	ERJ66MYG183	M. RESISTOR CH 1/10W 18K	1	
R3020	ERJ66MYG152	M. RESISTOR CH 1/10W 1.5K	1		R6044, 45	ERJ66MYG223	M. RESISTOR CH 1/10W 22K	2	
R3022	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	1		R6046	ERJ66MYG103	M. RESISTOR CH 1/10W 10K	1	
R3024	ERJ66MYG562	M. RESISTOR CH 1/10W 5.6K	1		R6047	ERJ66MYG272	M. RESISTOR CH 1/10W 2.7K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R6048	ERJ6GMYG201	M. RESISTOR CH 1/10W 200	1		C2011	ECUM1H472KBN	C. CAPACITOR CH 50V 4700P	1	
R6050	ERDS2TJ271	C. RESISTOR 1/4W 270	1		C2012	ECEA1EKA4R7	E. CAPACITOR 25V 4.7U	1	
R6051, 52	ERJ6GMYJ683	M. RESISTOR CH 1/10W 68K	2		C2013	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
R6054	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1		C2014	ECEA0JKA221	E. CAPACITOR 6.3V 220U	1	
R6055, 56	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	2		C2015	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
R6057	ERJ6GMYG222	M. RESISTOR CH 1/10W 2.2K	1		C2016	ECEA0JKA221	E. CAPACITOR 6.3V 220U	1	
R6058	ERJ6GMYG512	M. RESISTOR CH 1/10W 5.1K	1		C2017	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
R6059, 60	ERJ6GMYG392	M. RESISTOR CH 1/10W 3.9K	2		C2018	ECQV1H563B46	P. CAPACITOR 50V 0.056U	1	
R6061-63	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	3		C2019	ECUM1H563ZFN	C. CAPACITOR CH 50V 0.056U	1	
R6064	ERJ6RBD751	M. RESISTOR CH 1/10W 750	1		C2501	ECEA1HKA2R2	E. CAPACITOR 50V 2.2U	1	
R6065	ERJ6RHD6980	M. RESISTOR CH 1/10W	1		C2502	ECEA1CKA470	E. CAPACITOR 16V 47U	1	
R6066	ERJ6GMYG122	M. RESISTOR CH 1/10W 1.2K	1		C2503	ECEA1HKA2R2	E. CAPACITOR 50V 2.2U	1	
R7401	ERDS2TJ152	C. RESISTOR 1/4W 1.5K	1		C2504	ECEA1HKNR22	E. CAPACITOR 50V 0.22U	1	
R7402, 03	ERJ6GMYG561	M. RESISTOR CH 1/10W 560	2		C2505	ECEA1HKA010	E. CAPACITOR 50V 1U	1	
R7405	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1		C2506, 07	ECUM1E333KBN	C. CAPACITOR CH 25V 0.033U	2	
R7407	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1		C2508	ECUM1H103KBN	C. CAPACITOR CH 50V 0.01U	1	
R7501	ERJ6GMYG104	M. RESISTOR CH 1/10W 100K	1		C2510	ECQV1H563B46	P. CAPACITOR 50V 0.056U	1	
R7502	ERJ6GMYG101	M. RESISTOR CH 1/10W 100	1		C2511	ECUM1H563ZFN	C. CAPACITOR CH 50V 0.056U	1	
R7503	ERJ6GMYG331	M. RESISTOR CH 1/10W 330	1		C2512-14	ECUM1E333KBN	C. CAPACITOR CH 25V 0.033U	3	
R7504	ERJ6GMYG334	M. RESISTOR CH 1/10W 330K	1		C2515	ECEA1HKA2R2	E. CAPACITOR 50V 2.2U	1	
R7508	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1		C2517-19	ECEA1VKN4R7	E. CAPACITOR 35V 4.7U	3	
R7510	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1		C2520	ECUM1H473ZFN	C. CAPACITOR CH 50V 0.047U	1	
R7514, 15	ERJ6GMJ223	M. RESISTOR CH 1/10W 22K	2		C2521	ECEA0JKA101	E. CAPACITOR 6.3V 100U	1	
R7523	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1		C2522	ECQV1H683JM	P. CAPACITOR 50V 0.068U	1	
R7532	ERJ6GMYG153	M. RESISTOR CH 1/10W 15K	1		C2523-25	ECEA1HKAOR1	E. CAPACITOR 50V 0.1U	3	
R7533, 34	ERJ6GMYG332	M. RESISTOR CH 1/10W 3.3K	2		C2526	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
R7536	ERJ6GMYG563	M. RESISTOR CH 1/10W 56K	1		C3003	ECUM1H103KBN	C. CAPACITOR CH 50V 0.01U	1	
R7703	ERJ6GMYG222	M. RESISTOR CH 1/10W 2.2K	1		C3004	ECUM1H070DCN	C. CAPACITOR CH 50V 7P	1	
R7706	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1		C3005	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
R7708	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1		C3006	ECUM1H151JCN	C. CAPACITOR CH 50V 150P	1	
R7710	ERJ6GMYG562	M. RESISTOR CH 1/10W 5.6K	1		C3007	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
R7711	ERJ6GMYG104	M. RESISTOR CH 1/10W 100K	1		C3008	ECEA0JKA470	E. CAPACITOR 6.3V 47U	1	
R7712	ERJ6GMYG682	M. RESISTOR CH 1/10W 6.8K	1		C3009	ECUM1H070DCN	C. CAPACITOR CH 50V 7P	1	
R7714	ERJ6GMJ223	M. RESISTOR CH 1/10W 22K	1		C3010, 11	ECUM1H820JCN	C. CAPACITOR CH 50V 82P	2	
R7716	ERJ6GMYG302	M. RESISTOR CH 1/10W 3K	1		C3012	ECEA0JKA470	E. CAPACITOR 6.3V 47U	1	
R7717	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1		C3013	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
S1501	YES0709	SWITCH	1		C3014	ECEA1HKA3R3	E. CAPACITOR 50V 3.3U	1	
S7401	VSS0398	SWITCH	1		C3015	ECUM1H181JCN	C. CAPACITOR CH 50V 180P	1	
S7503	EVQ11409K	SWITCH	1		C3016	ECUM1H330JCN	C. CAPACITOR CH 50V 33P	1	
S7505-07	EVQ11G07K	SWITCH	3		C3017	ECUM1H220JCN	C. CAPACITOR CH 50V 22P	1	
S7508	EVQ11409K	SWITCH	1		C3018	ECEA1HKA47	E. CAPACITOR 50V 0.47U	1	
T801	ELM70207A	COIL	1		C3020	ECEA1HKA2R2	E. CAPACITOR 50V 0.22U	1	
T4001	EQQ70F024Q	TRANSFORMER	1		C3021	ECUM1H151JCN	C. CAPACITOR CH 50V 150P	1	
X3001	VSX0803	CRYSTAL OSCILLATOR	1		C3022	ECEA1HKA010	E. CAPACITOR 50V 1U	1	
X3002	VSX0680	CRYSTAL OSCILLATOR	1		C3023	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
X6001	VSX0583	CRYSTAL OSCILLATOR	1		C3024	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	1	
X7501	VSX0673	CRYSTAL OSCILLATOR	1		C3025	ECA0JM471	E. CAPACITOR 6.3V 470U	1	
X7502	VSX0666	CRYSTAL OSCILLATOR	1		C3026, 27	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	2	
X7701	VSX0679	CRYSTAL OSCILLATOR	1		C3028	ECEA1EKA4R7	E. CAPACITOR 25V 4.7U	1	
ZA801	VMP4894	SUPPORT ANGLE	1		C3029	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
ZB1501, 02	VMD2329	PHOTO TRANSISTOR HOLDER	2		C3030	ECUM1E333KBN	C. CAPACITOR CH 25V 0.033U	1	
ZB1503	VMD2330	LED HOLDER	1		C3031	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
ZB1504	VMD2328	REEL GUIDE	1		C3036	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
ZB7001	VXQ0424	FIP HOLDER	1		C3037	ECUM1H330JCN	C. CAPACITOR CH 50V 33P	1	
		MISCELLANEOUS			C3038	ECEA1HKA47	E. CAPACITOR 50V 0.47U	1	
△	ENG56416G	TUNER	1		C3039	ECUM1H152JCN	C. CAPACITOR CH 50V 1500P	1	
■	VEP06B35P	MAIN C.B.A.	(RTL) NV-SD460PM		C3040	ECUM1H270JCN	C. CAPACITOR CH 50V 27P	1	
B7501	CR2354-16UF	BATTERY	1		C3041	ECA0JM471	E. CAPACITOR 6.3V 470U	1	
C2001	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1		C3042, 43	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	2	
C2002	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1		C3044	ECUM1H223KBN	C. CAPACITOR CH 50V 0.022U	1	
C2003	ECEA1HKNR47	E. CAPACITOR 50V 0.47U	1		C3045	ECEA1HKA47	E. CAPACITOR 50V 0.47U	1	
C2005	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	1		C3046	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C2008	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1		C3048	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
C2009	ECUM1H392KBN	C. CAPACITOR CH 50V 3900P	1		C3049	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
					C3050	ECA0JM471	E. CAPACITOR 6.3V 470U	1	
					C3051	ECEA1HKA2R2	E. CAPACITOR 50V 0.22U	1	
					C3052	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
					C3053	ECEA1HKA47	E. CAPACITOR 50V 0.47U	1	
					C3054	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
					C3055	ECEA1EKA4R7	E. CAPACITOR 25V 4.7U	1	
					C3056	ECEA1HKA3R3	E. CAPACITOR 50V 3.3U	1	
					C3057	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
					C3058	ECEA1HKA47	E. CAPACITOR 50V 0.47U	1	
					C3059	ECEA1HKA3R3	E. CAPACITOR 50V 3.3U	1	
					C3060	ECUM1H121JCN	C. CAPACITOR CH 50V 120P	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C3061	ECUM1E473KBN	C. CAPACITOR CH 25V 0.047U	1		D1501	LN59LT.VT	LED	1	
C3062	ECEAOJKA470	E. CAPACITOR 6.3V 47U	1		D2001.02	1SS254	DIODE	2	
C3063	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		D2003	MA153	DIODE	1	
C3065	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		D2501	11ES1	DIODE	1	
C3066	ECUM1H220JCN	C. CAPACITOR CH 50V 22P	1		D3001	1SS254	DIODE	1	
C3067	ECUM1H180JCN	C. CAPACITOR CH 50V 18P	1		D3003	MA4056-H	DIODE	1	
C3068	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1		D6003	11ES1	DIODE	1	
C3069	ECUM1H681JCN	C. CAPACITOR CH 50V 680P	1		D7402	MA4300-M	DIODE	1	
C3070	ECUM1H101JCN	C. CAPACITOR CH 50V 100P	1		D7501	MA4075	DIODE	1	
C3071	ECUM1H680JCN	C. CAPACITOR CH 50V 68P	1		D7502.03	RB441P	DIODE	2	
C3079	ECEAOJKA470	E. CAPACITOR 6.3V 47U	1		D7504	MA700	DIODE	1	
C3080	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1		D7509	1SS254	DIODE	1	
C3081	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1		D7511-13	1SS254	DIODE	3	
C3096	ECEA1HKA010	E. CAPACITOR 50V 1U	1		D7703	RB441P	DIODE	1	
C3105	ECUM1H181JCN	C. CAPACITOR CH 50V 180P	1						
C3106-08	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	3		DP7501	VSL0338	DISPLAY TUBE	1	
C3109	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	1						
C3110	ECEAOJKA221	E. CAPACITOR 6.3V 220U	1		IC1501.02	ON1387	IC	2	
C3114.15	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	2		IC2501	BA6871BS	IC	1	
C3116	ECUM1H221JCN	C. CAPACITOR CH 50V 220P	1		IC2502	AN3814K	IC	1	
C4001	ECEA1KA220	E. CAPACITOR 10V 22U	1		IC3001	HA118201AF	IC	1	
C4002	ECUM1H392KBN	C. CAPACITOR CH 50V 3900P	1		IC3002	MN3880S	IC	1	
C4003	ECEAOJKA101	E. CAPACITOR 6.3V 100U	1		IC3005	BA7654F	IC	1	
C4004	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1		IC4001	BA7796FS	IC	1	
C4005-07	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	3		IC6001	M37776V1BV	IC	1	
C4008	ECUM1H103KBN	C. CAPACITOR CH 50V 0.01U	1		IC6002	BA6887-V3	IC	1	
C4009	ECEA1CKA100	E. CAPACITOR 16V 10U	1		IC6003	PST993D	IC	1	
C4010	ECUM1H332KBN	C. CAPACITOR CH 50V 3300P	1		IC7501	M37507V6AG	IC	1	
C4011	ECUM1H182KBN	C. CAPACITOR CH 50V 1800P	1		IC7701	D6464WVAG	IC	1	
C4012	ECEA1HKA010	E. CAPACITOR 50V 1U	1		IC7702	BA10393F	IC	1	
C4013	ECUM1H103KBN	C. CAPACITOR CH 50V 0.01U	1						
C4014	ECUM1H122KBN	C. CAPACITOR CH 50V 1200P	1		IR7501	PNA4601M02VT	IR RECEIVER UNIT	1	
C4015	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1						
C4016	ECEA1CKA220	E. CAPACITOR 16V 22U	1		JK3001	VJJ0391	4-PIN JACK	1	
C4017	ECGF1H221JC	C. CAPACITOR 50V 220P	1						
C4018	ECQB1H223JF	P. CAPACITOR 50V 0.022U	1		K3011	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
C4019	ECA1CM470	E. CAPACITOR 16V 47U	1		K4005.06	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	2	
C4020	ECUM1H223KBN	C. CAPACITOR CH 50V 0.022U	1		K6001.02	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	2	
C4021	ECUM1H152KBN	C. CAPACITOR CH 50V 1500P	1		K7503	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
C4025	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1		K7507	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
C4026	ECEA1EKA4R7	E. CAPACITOR 25V 4.7U	1		K7512	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
C4520	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1		K7514	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
C6002	ECEA1CKA470	E. CAPACITOR 16V 47U	1						
C6003	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1		L3001	VLQ0633J560	COIL 56UH	1	
C6005	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1		L3002	VLQ0633J680	COIL 68UH	1	
C6006	ECEAOJKA470	E. CAPACITOR 6.3V 47U	1		L3003	VLQ0633J221	COIL 220UH	1	
C6007.08	ECUM1H180JCN	C. CAPACITOR CH 50V 18P	2		L3004.05	VLQ0633J680	COIL 68UH	2	
C6010	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1		L3006	VLQ0633J120	COIL 12UH	1	
C6014	ECEA1HKA100	E. CAPACITOR 50V 10U	1		L3007	VLQ0633J390	COIL 39UH	1	
C6018	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1		L3008.09	VLQ0633J680	COIL 68UH	2	
C6019	ECUM1C224ZFN	C. CAPACITOR CH 16V 0.22U	1		L3011	VLQ0633J220	COIL 22UH	1	
C6020	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		L3012	VLQ0633J101	COIL 100UH	1	
C7401	ECEA1HKA010	E. CAPACITOR 50V 1U	1		L3013	VLQ0633J390	COIL 39UH	1	
C7403	ECA1CM471	E. CAPACITOR 16V 470U	1		L3014	VLQ0633J120	COIL 12UH	1	
C7404	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		L3018	VLQ0211J100	COIL 10UH	1	
C7406	ECEAOJKA101	E. CAPACITOR 6.3V 100U	1		L3019	VLQ0633J560	COIL 56UH	1	
C7407	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		L3020	VLQ0633J331	COIL 330UH	1	
C7501	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1		L3021	VLQ0633J560	COIL 56UH	1	
C7502	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		L4001	ELESN471KA	COIL 470UH	1	
C7503.04	ECUM1H270JCN	C. CAPACITOR CH 50V 27P	2		L7404.05	VLQ0633J101	COIL 100UH	2	
C7505	ECUM1H100DCN	C. CAPACITOR CH 50V 10P	1		L7701	VLQ0633J1R5	COIL 1.5UH	1	
C7506	ECUM1H390JCN	C. CAPACITOR CH 50V 39P	1		L7702	VLQ0633J330	COIL 33UH	1	
C7507	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1		L7704	VLQ0633J680	COIL 68UH	1	
C7508	ECEAOJKA331	E. CAPACITOR 6.3V 330U	1						
C7510	ECUM1H391JCN	C. CAPACITOR CH 50V 390P	1		LB3001	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
C7511	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1		LB3002	VLP0145	COIL	1	
C7702	ECEAOJKA470	E. CAPACITOR 6.3V 47U	1						
C7703	ECUM1H300JCN	C. CAPACITOR CH 50V 30P	1		P1001	VJS3631A011A	CONNECTOR (FEMALE) 11P	1	
C7704	ECUM1H100DCN	C. CAPACITOR CH 50V 10P	1		P1501	VJS3821	CONNECTOR (FEMALE) 4P	1	
C7705	ECEA1HKA2R2	E. CAPACITOR 50V 2.2U	1		P1502	VJS3640A002	CONNECTOR (FEMALE) 2P	1	
C7706-08	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	3		P2003	VJS3537A009G	CONNECTOR (FEMALE) 9P	1	
C7709	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1		P2501	VJS3537A015G	CONNECTOR (FEMALE) 15P	1	
C7711	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1		P2502	VJP3502	CONNECTOR (MALE)	1	
C7712	ECA0JM331	E. CAPACITOR 6.3V 330U	1		P3001	VJP3649E016W	CONNECTOR (MALE) 16P	1	
					P3003	VJP3633B005	CONNECTOR (MALE) 5P	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
P4001	TJS118601T	CONNECTOR	1		R3036	ERJ6GMYG122	M. RESISTOR CH 1/10W 1.2K	1	
P4002	VJP3646E006	CONNECTOR (MALE) 6P	1		R3037	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1	
P7501	VJP3630E014	CONNECTOR (MALE) 14P	1		R3038	ERJ6GMYG821	M. RESISTOR CH 1/10W 820	1	
					R3039	ERJ6GMYG562	M. RESISTOR CH 1/10W 5.6K	1	
Q1501, 02	PN205LT-NCVT	PHOTO TRANSISTOR	2		R3040	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
Q3001	2SD1996	TRANSISTOR	1		R3041	ERDS2TJ471	C. RESISTOR 1/4W 470	1	
Q3002	MSD601	TRANSISTOR	1		R3042	ERJ6GMYG471	M. RESISTOR CH 1/10W 470	1	
Q3003, 04	MSB709	TRANSISTOR	2		R3044	ERJ6GMYG821	M. RESISTOR CH 1/10W 820	1	
Q3005	MSC2295	TRANSISTOR	1		R3045	ERJ6GMYG561	M. RESISTOR CH 1/10W 560	1	
Q3006	MSD601	TRANSISTOR	1		R3046	ERJ6GMYG152	M. RESISTOR CH 1/10W 1.5K	1	
Q3007, 08	MSC2295	TRANSISTOR	2		R3059	ERJ6GMYG183	M. RESISTOR CH 1/10W 18K	1	
Q3014	MSB709	TRANSISTOR	1		R3062	ERJ6GMYG182	M. RESISTOR CH 1/10W 1.8K	1	
Q4001	2SD602-R	TRANSISTOR	1		R3064	ERJ6GMYJ474	M. RESISTOR CH 1/10W 470K	1	
Q6001	MSB709-R	TRANSISTOR	1		R3066	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1	
Q6004	MSB709	TRANSISTOR	1		R3067	ERJ6GMYG272	M. RESISTOR CH 1/10W 2.7K	1	
Q7401	2SD1996-R	TRANSISTOR	1		R3068	ERJ6GMYG562	M. RESISTOR CH 1/10W 5.6K	1	
					R3069	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
QR1001	MUN2211	TRANSISTOR-RESISTOR	1		R3079	ERJ6GMYJ225	M. RESISTOR CH 1/10W 2.2M	1	
QR2001	MUN2213	TRANSISTOR-RESISTOR	1		R3080	ERJ6GEYJ395	M. RESISTOR CH 1/10W 3.9M	1	
QR3014	MUN2213	TRANSISTOR-RESISTOR	1		R3082	ERJ6GMYG114	M. RESISTOR CH 1/10W 110K	1	
QR4003	MUN2211	TRANSISTOR-RESISTOR	1		R3085	ERJ6GMYG101	M. RESISTOR CH 1/10W 100	1	
QR6001	XN1211	TRANSISTOR-RESISTOR	1		R3088	ERJ6GMYJ124	M. RESISTOR CH 1/10W 120K	1	
QR7501	MUN2213	TRANSISTOR-RESISTOR	1		R3091	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1	
QR7702	DTA113TKA	TRANSISTOR-RESISTOR	1		R3093	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1	
QR7703	MUN2113	TRANSISTOR-RESISTOR	1		R4001	ERJ6GMYG472	M. RESISTOR CH 1/10W 4.7K	1	
QR7704	MUN2213	TRANSISTOR-RESISTOR	1		R4002	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1	
					R4003	ERJ6GMYJ105	M. RESISTOR CH 1/10W 1M	1	
R1001	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1		R4004	ERJ6GMYG331	M. RESISTOR CH 1/10W 330	1	
R2001	ERJ6GMYG392	M. RESISTOR CH 1/10W 3.9K	1		R4005	ERJ6GMYG334	M. RESISTOR CH 1/10W 330K	1	
R2002	ERJ6GMYJ105	M. RESISTOR CH 1/10W 1M	1		R4006	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1	
R2003	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1		R4007	ERJ6GMYJ113	M. RESISTOR CH 1/10W 11K	1	
R2005	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1		R4008	ERJ6GMYG222	M. RESISTOR CH 1/10W 2.2K	1	
R2011	ERJ6GMYG222	M. RESISTOR CH 1/10W 2.2K	1		R4010	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R2012-14	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	3		R4011	ERJ6GMYG393	M. RESISTOR CH 1/10W 39K	1	
R2501	ERJ6GMYG681	M. RESISTOR CH 1/10W 680	1		R4012	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1	
R2502	ERJ6GMYG821	M. RESISTOR CH 1/10W 820	4		R4013	ERJ6GMYG123	M. RESISTOR CH 1/10W 12K	1	
R2503, 04	ERDS2TJ560	C. RESISTOR 1/4W 56	2		R4014	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1	
R2505	ERDS1TJ561	C. RESISTOR 1/2W 560	1		R4015	ERJ6GMYG472	M. RESISTOR CH 1/10W 4.7K	1	
R2506	ERJ6GMYG432	M. RESISTOR CH 1/10W 4.3K	1		R4016	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1	
R2507	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1		R4017	ERJ6GMYG332	M. RESISTOR CH 1/10W 3.3K	1	
R2508	ERJ6GMYG473	M. RESISTOR CH 1/10W 47K	1		R4018	ERJ6GMYG100	M. RESISTOR CH 1/10W 10	1	
R2509	ERJ6GMYJ684	M. RESISTOR CH 1/10W 680K	1		R4020	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
R2510	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1		R4023	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R2511	ERJ6GMYG133	M. RESISTOR CH 1/10W 13K	1		R4024, 25	ERJ6GMYG682	M. RESISTOR CH 1/10W 6.8K	2	
R2512	ERJ6GMYJ105	M. RESISTOR CH 1/10W 1M	1		R4026, 27	ERJ6GMYG473	M. RESISTOR CH 1/10W 47K	2	
R2518	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1		R4028	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R2514	ERDS2TJ560	C. RESISTOR 1/4W 56	1		R4037	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1	
R2515	ERX12SJR47	M. RESISTOR 1/2W 0.47	1		R6001	ERX1SJR18	M. RESISTOR 1W 1.8	1	
R2516	ERDS2TJ330	C. RESISTOR 1/4W 33	1		R6002	ERJ6GMYG913	M. RESISTOR CH 1/10W 91K	1	
R2517	ERDS2FJR5	C. RESISTOR 1/4W 1.5	1		R6009	ERJ6GMYG332	M. RESISTOR CH 1/10W 3.3K	1	
R2518, 19	ERDS2TJ330	C. RESISTOR 1/4W 33	2		R6016	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1	
R2520	ERDS2FJR2	C. RESISTOR 1/4W 1.2	1		R6017	ERJ6GMYJ105	M. RESISTOR CH 1/10W 1M	1	
R2521	ERDS2TJ391	C. RESISTOR 1/4W 390	1		R6023, 24	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	2	
R3001	ERJ6GMYG561	M. RESISTOR CH 1/10W 560	1		R6025, 26	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	2	
R3006, 07	ERJ6GMYG681	M. RESISTOR CH 1/10W 680	2		R6027, 28	ERJ6GMYG272	M. RESISTOR CH 1/10W 2.7K	2	
R3008	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1		R6030	ERJ6GMYG473	M. RESISTOR CH 1/10W 47K	1	
R3009, 10	ERJ6GMYG750	M. RESISTOR CH 1/10W 75	2		R6034, 35	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	2	
R3011	ERJ6GMYG122	M. RESISTOR CH 1/10W 1.2K	1		R6036	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1	
R3012	ERJ6GMYG681	M. RESISTOR CH 1/10W 680	1		R6037	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R3015	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	1		R6038, 39	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	2	
R3016	ERJ6GMYG272	M. RESISTOR CH 1/10W 2.7K	1		R6042	ERJ6GMYG183	M. RESISTOR CH 1/10W 18K	1	
R3017	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1		R6044, 45	ERJ6GMYG223	M. RESISTOR CH 1/10W 22K	2	
R3018	ERJ6GMYG822	M. RESISTOR CH 1/10W 8.2K	1		R6046	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1	
R3019	ERJ6GMYG682	M. RESISTOR CH 1/10W 6.8K	1		R6047	ERJ6GMYG272	M. RESISTOR CH 1/10W 2.7K	1	
R3020	ERJ6GMYG152	M. RESISTOR CH 1/10W 1.5K	1		R6048	ERJ6GMYG201	M. RESISTOR CH 1/10W 200	1	
R3022	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1		R6050	ERDS2TJ271	C. RESISTOR 1/4W 270	1	
R3024	ERJ6GMYG562	M. RESISTOR CH 1/10W 5.6K	1		R6051, 52	ERJ6GMYJ683	M. RESISTOR CH 1/10W 68K	2	
R3025	ERJ6GMYG821	M. RESISTOR CH 1/10W 820	1		R6054	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
R3026	ERJ6GMYG103	M. RESISTOR CH 1/10W 10K	1		R6055, 56	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	2	
R3028	ERJ6GMYG332	M. RESISTOR CH 1/10W 3.3K	1		R6057	ERJ6GMYG222	M. RESISTOR CH 1/10W 2.2K	1	
R3029	ERJ6GMYG123	M. RESISTOR CH 1/10W 12K	1		R6058	ERJ6GMYG512	M. RESISTOR CH 1/10W 5.1K	1	
R3030	ERJ6GMYG273	M. RESISTOR CH 1/10W 27K	1		R6059, 60	ERJ6GMYG392	M. RESISTOR CH 1/10W 3.9K	2	
R3031, 32	ERJ6GMYG473	M. RESISTOR CH 1/10W 47K	2		R6061-63	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	3	
R3033	ERJ6GMYG332	M. RESISTOR CH 1/10W 3.3K	1		R6064	ERJ6RBD751	M. RESISTOR CH 1/10W 750	1	
R3034	ERJ6GMYJ391	M. RESISTOR CH 1/10W 390	1		R6065	ERJ6RHD6980	M. RESISTOR CH 1/10W	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
QR501-05	MUN2213	TRANSISTOR-RESISTOR	5	
R501.02	ERJ6GMYG102	M. RESISTOR CH 1/10W 1K	2	
R503	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
R506	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
R510	ERJ6GMYG222	M. RESISTOR CH 1/10W 2.2K	1	
R511	ERJ6RBD103	M. RESISTOR CH 1/10W 10K	1	
R512	ERJ6RBD202	M. RESISTOR CH 1/10W 2K	1	
R513	ERJ6RBD912	M. RESISTOR CH 1/10W 9.1K	1	
R514	ERJ6RBD102	M. RESISTOR CH 1/10W 1K	1	
R515	ERJ6GMYG273	M. RESISTOR CH 1/10W 27K	1	
R516	ERJ6GMYG473	M. RESISTOR CH 1/10W 47K	1	
R517	ERJ6GMYG471	M. RESISTOR CH 1/10W 470	1	
R518	ERJ6RBD152	M. RESISTOR CH 1/10W 1.5K	1	
R519	ERJ6RBD392	M. RESISTOR CH 1/10W 3.9K	1	
R520	ERJ6RBD271	M. RESISTOR CH 1/10W 270	1	
R521	ERJ6RBD152	M. RESISTOR CH 1/10W 1.5K	1	
R522	ERJ6GMYG271	M. RESISTOR CH 1/10W 270	1	
R523	ERJ6RBD822	M. RESISTOR CH 1/10W 8.2K	1	
R524	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
R525	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
ZA501	VSC4175	SHIELD COVER (TOP)	1	
ZA502	VSC4172	SHIELD COVER (BOTTOM)	1	
■	VEP07942B	OPERATION C. B. A.		(RTL) NV-HD660PM
C7901.02	ECKF1H103ZF	C. CAPACITOR 50V 0.01U	2	
C7904-07	ECKF1H103ZF	C. CAPACITOR 50V 0.01U	4	
D7901	1SS254	DIODE	1	
P7901	VJS3630B014B	CONNECTOR (FEMALE) 14P	1	
QR7901	UN1112	TRANSISTOR-RESISTOR	1	
R7901-03	ERDS2TJ122	C. RESISTOR 1/4W 1.2K	3	
R7904	ERDS2TJ333	C. RESISTOR 1/4W 33K	1	
S7901	EVQ21405R	SWITCH	1	
S7903	EVQ21405R	SWITCH	1	
S7906	EVQ21405R	SWITCH	1	
S7908	EVQ21405R	SWITCH	1	
S7913	VSQ0817	SWITCH	1	
■	VEP07942F	OPERATION C. B. A.		(RTL) NV-SD460AR
C7901.02	ECKF1H103ZF	C. CAPACITOR 50V 0.01U	2	
C7904-07	ECKF1H103ZF	C. CAPACITOR 50V 0.01U	4	
D7901	1SS254	DIODE	1	
P7901	VJS3630B014B	CONNECTOR (FEMALE) 14P	1	
QR7901	UN1112	TRANSISTOR-RESISTOR	1	
R7901-03	ERDS2TJ122	C. RESISTOR 1/4W 1.2K	3	
R7904.05	ERDS2TJ333	C. RESISTOR 1/4W 33K	2	
S7901	EVQ21405R	SWITCH	1	
S7903	EVQ21405R	SWITCH	1	
S7905	ESD172252	SLIDE SWITCH	1	
S7906	EVQ21405R	SWITCH	1	
S7908	EVQ21405R	SWITCH	1	
S7913	VSQ0769	SWITCH	1	
■	VEP07942E	OPERATION C. B. A.		(RTL) NV-SD460BR

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C7901.02	ECKF1H103ZF	C. CAPACITOR 50V 0.01U	2	
C7904-07	ECKF1H103ZF	C. CAPACITOR 50V 0.01U	4	
D7901	1SS254	DIODE	1	
P7901	VJS3630B014B	CONNECTOR (FEMALE) 14P	1	
QR7901	UN1112	TRANSISTOR-RESISTOR	1	
R7901-03	ERDS2TJ122	C. RESISTOR 1/4W 1.2K	3	
R7904	ERDS2TJ333	C. RESISTOR 1/4W 33K	1	
S7901	EVQ21405R	SWITCH	1	
S7903	EVQ21405R	SWITCH	1	
S7905	ESD172352	SWITCH	1	
S7906	EVQ21405R	SWITCH	1	
S7908	EVQ21405R	SWITCH	1	
S7913	VSQ0769	SWITCH	1	
■	VEP07942D	OPERATION C. B. A.		(RTL) NV-SD460PM
C7901.02	ECKF1H103ZF	C. CAPACITOR 50V 0.01U	2	
C7904-07	ECKF1H103ZF	C. CAPACITOR 50V 0.01U	4	
D7901	1SS254	DIODE	1	
P7901	VJS3630B014B	CONNECTOR (FEMALE) 14P	1	
QR7901	UN1112	TRANSISTOR-RESISTOR	1	
R7901-03	ERDS2TJ122	C. RESISTOR 1/4W 1.2K	3	
R7904	ERDS2TJ333	C. RESISTOR 1/4W 33K	1	
S7901	EVQ21405R	SWITCH	1	
S7903	EVQ21405R	SWITCH	1	
S7906	EVQ21405R	SWITCH	1	
S7908	EVQ21405R	SWITCH	1	
S7913	VSQ0769	SWITCH	1	
■	VEP07943A	FRONT JACK C. B. A.		(RTL) NV-HD660PM
JK6601	VJJ0416	JACK	1	
P6601	VJS3633B005	CONNECTOR (FEMALE) 5P	1	
R6605	ERDS2TJ750	C. RESISTOR 1/4W 75	1	
■	VEP07943B	FRONT JACK C. B. A.		(RTL) NV-SD460AR/BR/PM
JK6601	VJJ0417	JACK	1	
P6601	VJS3633B005	CONNECTOR (FEMALE) 5P	1	
R6605	ERDS2TJ750	C. RESISTOR 1/4W 75	1	
△	■	VEP01774B	POWER C. B. A.	(RTL)
△	C1101.02	ECKMWS331MBH	C. CAPACITOR 330P	2
△	C1103	ECKMWS102MEH	C. CAPACITOR 1000P	1
△	C1104	ECQU2A333MNB	P. CAPACITOR 250V 0.033U	1
C1106	ECEC2G6680	E. CAPACITOR 400V 68U	1	
C1108	ECG23A271KGE	C. CAPACITOR 1KV 270P	1	
C1109	ECEA1VGE470	E. CAPACITOR 35V 47U	1	
C1110	ECEA0JGE331	E. CAPACITOR 6.3V 330U	1	
C1111	ECKF1H102KB	C. CAPACITOR 50V 1000P	1	
C1113	ECQB1H223JF	P. CAPACITOR 50V 0.022U	1	
C1131	EEUFA1E331	E. CAPACITOR 25V 330U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
G1132	ECEA1E6E221	E. CAPACITOR 25V 220U	1						
G1133	ECKD2H101KB	C. CAPACITOR 500V 100P	1						
G1134	EEUFA1A391B	E. CAPACITOR 10V 390U	1			■ VEX0129	CYLINDER DRIVE C. B. A.		(RTL) NV-HD660PM
G1135	EEUFA0J561B	E. CAPACITOR 6.3V 560U	1						
G1136	ECKD2H101KB	C. CAPACITOR 500V 100P	1			C2901-03	ECEA1VSN2R2	E. CAPACITOR 35V 2.2U	3
G1137	ECEA1JFE470	E. CAPACITOR 63V 47U	1			C2904-06	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	3
G1138	ECKF1H103ZF	C. CAPACITOR 50V 0.01U	1			C2907	ECUM1E683KBN	C. CAPACITOR CH 25V 0.068U	1
G1139	ECKD2H101KB	C. CAPACITOR 500V 100P	1			C2908	ECUM1E473KBN	C. CAPACITOR CH 25V 0.047U	1
G1140	ECA1VF0560	E. CAPACITOR 35V 56U	1			C2910	ECEA1CKS100	E. CAPACITOR 16V 10U	1
G1141	ECKF1H103ZF	C. CAPACITOR 50V 0.01U	1						
G1143	ECA0JF0221	E. CAPACITOR 6.3V 220U	1			IC2901	AN3814K	IC	1
G1144-46	ECKF1H103ZF	C. CAPACITOR 50V 0.01U	3						
G1147	ECEA1CU470	E. CAPACITOR 16V 47U	1			P2901	VJP2603W	CONNECTOR (MALE) 12P	1
G1148	ECA1CM101	E. CAPACITOR 16V 100U	1			P2902	VJP1232T	CONNECTOR (MALE) 5P	1
△D1102	S1WBA60S	DIODE	1			R2901	ERX12SJRG8	M. RESISTOR CH 1/2W 0.68	1
D1104	MA178	DIODE	1						
D1105	MA700	DIODE	1					MISCELLANEOUS	
D1106	MA4200H	DIODE	1				VMA9138	MAIN HOLDER	1
D1107	1SS254	DIODE	1						
D1120	MA4056-HVT	DIODE	1						
D1121	15DF2FC	DIODE	1						
D1122	11EQS04	DIODE	1			■ -----	CYLINDER STATOR C. B. A.		NV-SD460AR/BR/PM
D1123	ERA22-02	DIODE	1						
D1124	MA185	DIODE	1					MISCELLANEOUS	
D1125	11EQS04	DIODE	1				HW-300A-CF	HALL IC	1
D1128	MA4120-M	DIODE	1				VJS3537B009G	CONNECTOR (FEMALE) 9P	1
D1129	1SS254	DIODE	1						
△F1101	XBA2C16TB0	FUSE	1			■ -----	RT CONNECTION C. B. A. (460)		NV-SD460AR/BR/PM
△IC1101	STRM6559LF	IC	1						
△L1101.02	ELF180290A	COIL 29UH	2					MISCELLANEOUS	
L1103.04	VLP0083	COIL	2				VJP3578	CONNECTOR (MALE) 8P	1
L1105	VLP0085	COIL	1						
L1110	VLP0085	COIL	1						
L1121	VLQ0611K220	COIL 22UH	1			■ -----	MOTOR C. B. A.		(RTL)
L1122	ELELN220KA	COIL 22UH	1						
L1123.24	ELESE101KA	COIL 100UH	2					MISCELLANEOUS	
L1125	VLP0085	COIL	1				VJP3316B002	CONNECTOR (MALE) 2P	1
L1126	VLP0083	COIL	1						
△P1101	VJS2625	AC INLET	1						
P1103	VJP3631A011W	CONNECTOR (MALE) 11P	1						
△Q1101	PG120F	TRANSISTOR	1						
Q1102.03	2SD1991-R	TRANSISTOR	2						
Q1104	2SD25440PQA	TRANSISTOR	1						
R1103.04	ERDS2FJ224	C. RESISTOR 1/4W 220K	2						
R1105	ERDS1TJ395	C. RESISTOR 1/2W 3.9M	1						
R1106	ERDS1TJ475	C. RESISTOR 1/2W 4.7M	1						
R1107	ERDS2FJ224	C. RESISTOR 1/4W 220K	1						
R1108	ERDS2FJ101	C. RESISTOR 1/4W 100	1						
R1109	ERDS2FJ152	C. RESISTOR 1/4W 1.5K	1						
R1110	ERDS2FJ103	C. RESISTOR 1/4W 10K	1						
R1111.12	ERDS2FJ471	C. RESISTOR 1/4W 470	2						
R1113	ERX1SJR82	M. RESISTOR 1W 0.82	1						
R1114	ERDS2FJ152	C. RESISTOR 1/4W 1.5K	1						
R1115	ERDS2TJ272	C. RESISTOR 1/4W 2.7K	1						
R1117	ERDS2FJ220	C. RESISTOR 1/4W 22	1						
R1118	ERDS2TJ122	C. RESISTOR 1/4W 1.2K	1						
R1119	ERDS2TJ391	C. RESISTOR 1/4W 390	1						
R1120	ERDS2TJ221	C. RESISTOR 1/4W 220	1						
R1121	ERDS2TJ151	C. RESISTOR 1/4W 150	1						
R1122	ERDS2TJ331	C. RESISTOR 1/4W 330	1						
R1123	ERDS1TJ472	C. RESISTOR 1/2W 4.7K	1						
△T1101	ETE28K94AY	TRANSFORMER	1						
△	EYF52BC	MISCELLANEOUS	2						
	VMP4593	FUSE HOLDER	1						
	VHD0418	POWER PLATE SCREW	1						

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